LONG WAY TO KNOWLEDGE BASED SOCIETY

Macedonian Education in the Light of the EC Education and Training 2010 Work Program Benchmarks and Indicators

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CONTENTS

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LIST OF ABBREVIATIONS

General abbreviations

AB	Accreditation Board
APL	Accreditation of Prior Learning
ARWU	Academic Ranking of World Universities
BDE	Bureau for Development of Education
CARDS	Community Assistance for Reconstruction, Development and Stabilisation (EC financial assistance)
CVET	Continuous Vocational Education and Training
DS	Diploma Supplement
DVV	Institute for International Cooperation at the Association of the German Popular Universities
EA	Evaluation Agency
EC	European Commission
ECTS	European Credit Transfer and Accumulation System
ECVET	European Credit Transfer System for Vocational Education and Training
EHEA	European Higher Education Area
ELTAM	English Language Teachers' Association of Macedonia
EMIS	Education Management Information System
ENIC	European Network of Information Centres
ENQA	European Association for Quality Assurance in Higher Education
EQARF	European Quality Assurance Reference Framework
EQF	European Qualifications Framework
ESL	Early School Leavers
ERA	European Research Area
ETF	European Training Foundation
E&T	Education and Training [2010 Work Programme]
EU	European Union
EUA	European University Association
EUROSTAT	Statistical Office of the European Communities

FOSIM	Foundation Open Society Institute Macedonia
FTE	Full Time Equivalent
GER	Gross Enrolment Ratio
GDP	Gross Domestic Product
GHK	Gilmore Hankey Kirke Consulting Company
HE	Higher Education
HEI	Higher Education Institution
HRK	German Rectors' Conferences
ISCED	International Standard Classification of Education
ICT	Information and Communication Technology
IT	Information Technology
LFS	Labour Force Survey
LLL	Lifelong Learning
MAKS	Macedonian Association for Quality Language Services
MANU	Macedonian Academy of Sciences and Arts
MOES	Ministry of Education and Science of the Republic of Macedonia
MIPD	Multi-Annual Indicative Planning Document
MLSP	Ministry of Labour and Social Policy
MST	Math Science and Technology
NAPE	National Action Plan for Employment
NARIC	National Academic Recognition Information Centres
NER	Net Enrolment Rate
NES	National Employment Strategy
NGO	Non Governmental Organization
NPDE	National Programme for Development of Education 2005-2015
NQF	National Qualifications Framework
OECD	Organization for Economic Cooperation and Development
OSCE	Organization for Security and Co-operation in Europe
PISA	Programme for International Student Assessment
PIRLS	Progress in International Reading Literacy Study
QA	Quality Assurance
R&D	Research and Development
REF	Roma Education Fund
SEEU	Southeast European University at Tetovo
SME	Small and Medium-Sized Enterprise
SUT	State University in Tetovo
TIMSS	Trends in International Mathematics and Science Study

USAID	United States Agency for International Development
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UKIM	University Ss. Cyril and Methodius, Skopje
UKLO	University St. Climent of Ohrid, Bitola
UOE	UNESCO/OECD/EUROSTAT database on education statistics
VET	Vocational Education and Training
WBL	Work-Based Learning
WB	World Bank
WU	Worker Universities
WUR	World University Ranking

Country abbreviations

BG	Bulgaria
CZ	Czech Republic
DK	Denmark
FL	Finland
FR	France
HR	Croatia
IE	Ireland
LT	Lithuania
MK	Republic of Macedonia
NL	Netherlands
PL	Poland
SI	Slovenia
SE	Sweden
UK	United Kingdom

GLOSSARY

Key terms and defintions

Equity is viewed as the extent to which individuals can take advantage of education and training, in terms of opportunities, access, treatment and outcomes. Equitable systems ensure that the outcomes of education and training are independent of socio-economic background and other factors that lead to educational disadvantage and that treatment reflects individuals' specific learning needs. *Source: Eurostat, Pocketbook on Candidate and Potential Candidate countries, 2007*

Efficiency involves the relationship between inputs and outputs in a process. Systems are efficient if the inputs produce the maximum output. Relative efficiency in relation to wider society and the economy is measured through private and social rates of return" *Source: COM (2006) 481 final*

EUROPASS is an EU initiative to increase transparency of qualification and mobility of citizens in Europe. The Europass label brings together five documents that cover qualifications and competences in a lifelong learning perspective:1) the Europass CV; 2) Europass Portfolio of Languages; 3) Europass Mobility (mobility experience for learning purposes); 4) Europass Diploma Supplement qualifications in higher education); 5) Europass Certificate Supplement (qualifications in vocational training). *Source:* http://ec.europa.eu/education/programmes/europassindex_en.html

Full-time equivalent (FTE) is the number of persons in paid employment in research-development activity who devote only part of their working time to a given R&D activity. They could spend between 10% and 90% of their working time on a given R&D activity, estimated by number of personnel who devote all or almost all of their working time to a given R&D activity.

Formal Education is defined as "...education provided in the system of schools, colleges, universities and other formal educational institutions that normally constitutes a continuous "ladder" of full-time education for children and young people, generally beginning at age of five to seven and continuing up to 20 or 25 years old. In some countries, the upper parts of this "ladder" are organised programmes of joint part-time employment and part-time participation in the regular school and university system: such programmes have come to be known as the "dual system" or equivalent terms in these countries." *Source: UNESCO Definitions: Exchange Platforms on Non-Formal Education* availabe at: http://portal.unesco.org/education/en/

Gross Enrolment Ratio (GER) is the number of pupils enrolled in a given level of education, regardless of age, expressed as percentage of the population in the theoretical age group for the same level of education. *Source: EC Staff Working Document (2008). Progress Towards the Lisbon Objectives in Education and Training.*

HEIs means any type of higher education institution, in accordance with the national legislation or practice which offers recognized degrees or other recognized tertiary level qualification (university, faculty, higher vocation schools, art academy / school)

Knowledge based society: A society whose processes and practices are based on the production, distribution, and use of knowledge. *Source: COM (2001a) 678 final*

Lifelong Learning is defined as encompassing "all learning activities undertaken throughout life, with the aim of improving knowledge, skills and competences, within a personal, civic, social and or employment related perspective." *Source: COM (2001a) 678 final.* The *European Employment Strategy definition* of LLL reads: "all purposeful learning activities, whether formal or informal, undertaken on an ongoing basis with the aim of improving knowledge, skills and competences."

MST: Mathematics, science and technology cover the following fields: life sciences, physical sciences, mathematics and statistics, computing, engineering and engineering trades, manufacturing and processing, architecture and building" *(ISCED fields of education 42, 44, 46, 48, 52, 54 and 58)*

Net Intake Rate (NIR) is the number of new entrants in the first grade of primary or first year of secondary education who are of the theoretical primary / secondary school entrance age, expressed as a percentage of the population of the same age. *Source: UNICEF definition of indicators*

The **Net Enrolment Rate (NER)** is the number of pupils of the theoretical school age group for a given level of education, expressed as a percentage of the total population in that age group. When the NER is compared with the GER the difference between the two ratios highlights the incidence of under-aged and over aged enrolment. *Source: EC Staff Working Document (2008). Progress Towards the Lisbon Objectives in Education and Training.*

Non Formal Education is defined as "any organised and sustained educational activity that does not correspond exactly to the above definition of formal education. Non-formal education may therefore take place both within and outside educational institutions, and cater to persons of all ages. Depending on country context, it may cover educational programmes to impart adult literacy, basic education for out-of- school children, life-skills, work-skills, and general culture. Non formal education programmes do not necessarily follow the "ladder" system, may have different duration and may or may not confer certification of the learning achieved". *Source: UNESCO Definitions: Exchange Platforms on Non-Formal Education*
http://portal.unesco.org/education/en/

The **National Framework of Qualifications (NFQ)** is defined as "the single, nationally and internationally accepted entity, through which all learning achievements may be measured and related to each other in a coherent way and which define the relationship between all education and training awards". The NFQ could take the form of a regulatory document which stipulates the qualifications and their relative positions in a hierarchy of learning achievements as well as the bodies that provide or deliver these qualifications (awarding bodies). An institutionalised learning activity (i.e. education in the broader sense) is formal when its completion leads to a learning achievement that is possible to position within the National Framework of Qualification (NFQ).

Participation rate for a given age is the ratio of the number of pupils/students of the respective age registered at a given level of education (or in a given type of institution) and the total population of that age. *Source: Education across Europe 2003, Eurostat, Theme 3, Population and Social Conditions, EC*

ISCED: The **International Standard Classification of Education** was designed by UNESCO in the early 1970s to serve as an instrument suitable for assembling, compiling and presenting statistics of education both within individual countries and internationally. The present classification - now known as ISCED 1997 - was approved by the UNESCO General Conference at its 29th session in November 1997. ISCED is a framework for the compilation and presentation of national and international education statistics and indicators. It covers all organized and sustained learning activities for children, youth and adults including those with special educational needs. By providing a sound basis for statistical comparisons between different education systems, ISCED97 helps policy-makers and others who want to learn from the educational development experience of other countries. ISCED defined levels of education: Level 0: Pre-primary education; Level 1: Primary Education or First Stage of Basic education; Level 2: Lower Secondary or second Stage of Basic Education; Level 3: (Upper) Secondary Education; Level 4: Post-Secondary Non-Tertiary Education; Level 5: First Stage of Tertiary Education (Not leading directly to an advanced research qualification) and Level 6: Second Stage of Tertiary education (leading to an advanced research qualification) *Source: UNESCO ISCED 1997* available at: http://www.unesco.org/education/information/nfsunesco/doc/isced_1997.html

Social Inclusion: When people can participate fully in economic, social and civil life, when their access to income and other resources (personal, family, social and cultural) is sufficient to enable them to enjoy a standard of living and quality of life that is regarded as acceptable by the society in which they live and when they are able fully to access their fundamental rights. *Source: COM (2001a) 678 final*

Tertiary graduates are defined as those who have successfully completed education programs that usually result in obtaining a certificate or diploma, such as bachelors' degree, masters' degree or a doctorate. *Source: Eurostat, Pocketbook on Candidate and Potential Candidate countries, 2007*

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INTRODUCTION

This policy paper is intended to tackle the key issues stemming from the Macedonian educational policies and their implementation. It aims to contribute to the (non) existing social dialogue on on-going education reforms, to leverage maximum support for enhancing the European perspective of education in the Republic of Macedonia. This paper provides background for further discussion and analyses.

The purpose of this paper is to examine the performance of the Macedonian education system against the five key benchmarks set up under the Education and Training (E&T) 2010 Work programme of the EU. It provides general analysis of the state of affairs in Macedonian education in the light of the five EU benchmarks, and it reflects upon the EU-27 average and the performance of other countries from the SEE region. It also offers broad analysis of the possible implications and provides possible answers on what needs to be put in place to build, strengthen and sustain the accession potential of Macedonian education and training system within the European education area.

The paper is organized as follows:

Chapter 1 describes the methodology used by the authors in developing the paper.

Chapter 2 provides background information and outlines the basic strategic pillars of the EU (E&T) 2010 Work programme.

Chapter 3 is organized in five sub-chapters, one for each of the five education benchmarks.

Each benchmark sub-chapter is structured in three sequencing sections.

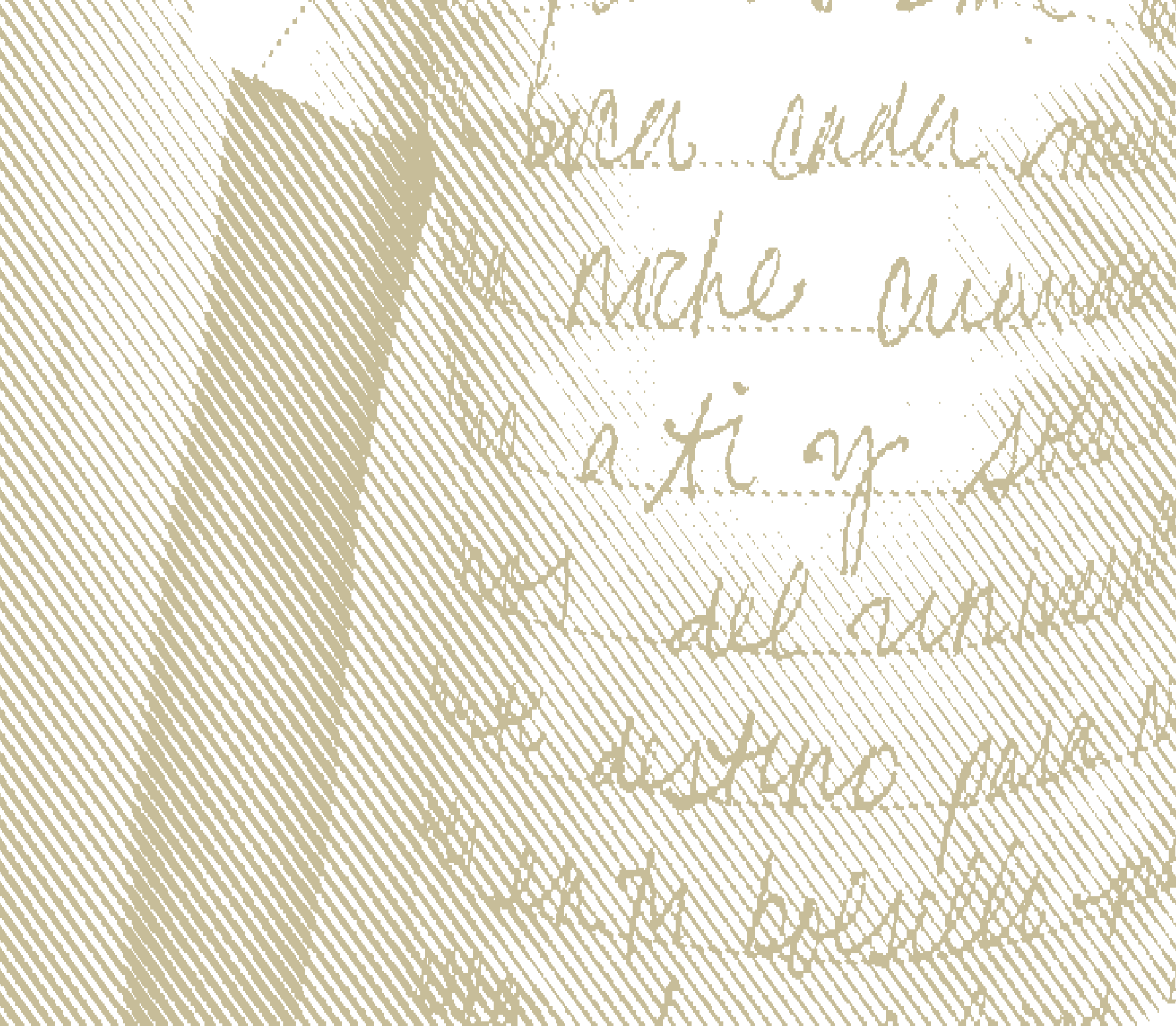
The first section presents the comparative data on the EU-27, the performance in SEE countries and Macedonia, provides an overview of the policies and policy measures applied by the EU Member States and offers some information on the effective policy implementation patterns identified by various studies and policy researches at the EU level.

The second section is an analysis that examines the key findings in education and training and the policies in the Republic of Macedonia. It also looks at the country's performance in a wide range of the core education indicators determined with the (E&T) Work Programme.

The third section outlines the recommendations of the policy paper.

Chapter 4 summarizes the general conclusions and recommendations derived from all chapters of the paper.

Chapter 5 provides some final reflections for the next steps.



Chapter 1

METHODOLOGY

For the purpose of this policy paper, a desk research of secondary sources was conducted to screen publicly available national and international sources related to the performance of the education and training systems across Europe and in Macedonia.

In order to build a comprehensive outlook, the desk research of secondary sources was combined with the collection of primary data. This involved compilation of a list and collection of core primary and secondary data sources to be assessed, including:

- Commission's progress reports on implementing the Education and Training 2010 Work programme;
- DG Education and Culture of the European Commission web site;
- Ministry of Education and Science of the Republic of Macedonia website;
- Ministry of Labour and Social Policy of the Republic of Macedonia website;
- Bureau for Development of Education website;
- OECD Thematic Reviews;
- UNESCO, UNICEF and World Bank websites;
- Wide range of publicly available national and international reports, studies and researches (the reference list summarizes all the documents examined);
- EUROSTAT Pocketbooks; UNESCO and OECD database;
- National Statistical Office websites and statistical reviews;
- National legislation on education and training (laws and regulations).

Analysis of primary and secondary data, analysis of collected documents and qualitative thematic analysis were applied as basic data analysis method. The analysis instigated the overall trends and the underlying reasons for the trends.

This policy paper experienced limitations mainly because of the partial and /or very limited amount of publicly available national education data, as well as because of the prevailing tendency to collect and present information in diverse and/or inconsistent manner by different public authorities and or/institutions. It is to be noted that this paper brings together available data, but is also intended to contribute to the closing of an existing statistical information gap regarding the key education benchmarks in the country.

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Chapter 2

BACKGROUND

The strategic goal for the European Union set by the Lisbon European Council in March 2000 and reaffirmed by the Stockholm European Council a year later (March 2001) is to make Europe "the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion".

The European Union has no "common policy" on education but it has specific ways of promoting cooperation in this field through policy cooperation with the Member States, action programmes, recommendations, communications, working documents, pilot projects etc. Once included in EC Treaty signed in Maastricht in 1992, the Education and Training (E&T) 2010 Work Programme was set up in 2002 as an over-arching policy cooperation framework aiming to make the EU's education and training systems a world reference by the end of the decade. Implemented through the "Open method of coordination[1]", E&T 2010 is making a vital contribution towards achieving the main objectives of the Lisbon Strategy in terms of quality, accessibility and openness of education and training systems. The EC Integrated Guidelines for Growth and Jobs (2005-2008)[2] and the one renewed for the next cycle (2008-2010)[3] includes two essential guidelines for education and training (number 23 and 24) that reflect the priorities of E&T 2010 Work Programme. The conclusions of 2000 Lisbon European Council and the Spring 2007 European Council called the EU Member States to fully implement the E&T 2010 programme[4].

1 The Lisbon Conclusions defined the open method of coordination as " means of spreading best practice and achieving greater convergence towards the main EU goals and indicated that it would be a fully decentralized approach using variable forms of partnerships, designed to help Member States develop their own policies progressively...". European Council (2002), *Detailed Work Program on the follow-up objectives of the Education and Training systems in Europe,* Official Journal (2002/C 142/01), http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2002:142:0001:0022:EN:PDF

2 European Commission (2005), *Integrated Guidelines for Growth and Job,* Commission Recommentation on the broad guidelines for the economic policies of the Member States and the Community and a Proposal for a Council Decision on guidelines for the employment policies of the Member States, COM (2005) 141 final, Brussels, http://ec.europa.eu/growthandjobs/pdf/COM2005_141_en.pdf

3 European Commission (2007), *Strategic report on the renewed Lisbon strategy for growth and jobs: launching the new cycle (2008-2010): Keeping up the pace of change*, Communication from the Commission to the Spring European Council, COM (2007) 803 final, Brussels, http://ec.europa.eu/growthandjobs/pdf/european-dimension-200712-annual-progress-report/200712-annual-report_en.pdf

4 European Council (2000), *Presidency Conclusions*, Lisbon 23/24 March 2000 and European Council (2007), *Presidency Conclusions*, Brussels 8/9 March 2007 available at: http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ec/00100-r1.en0.htm and http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ec/93135.pdf

In accordance with the subsidiarity principle, it is primarily up to the Member States to take actions to follow up the conclusions and have full responsibility to the content and organization of their education systems.

Every two years since 2004, the Council and the Commission adopt a Joint Report on E&T 2010 implementation, monitoring the improvements and providing recommendations to the EU Member States. The 2007 progress report has applied 5 benchmarks[5] and 16 core indicators adopted by the Education Council[6] in May, 2007 for analyzing the progress since 2000.

The core indicators cover a wide spectrum of learning, starting from pre-school to adult education, as well as teachers' professional development and investment in education and training. The last available report is from 2008.

The benchmarks set out by E&T 2010 to be achieved by 2010 are:

- No more that 10% early school-leavers;
- Decrease of at least 20% in the percentage of low achieving pupils in reading literacy;
- At least 85% of young people should have completed upper secondary education;
- Increased of at least 15 % in the number of tertiary graduates in Mathematics, Science and Technology (MST) with a simultaneous decrease in the gender imbalance;
- 12.5% of the adult population should participate in lifelong learning.

Use of indicators and benchmarks serve as tools for evidence-based policymaking at European level. The indicators are structured under the 8 strategic areas which reflect the political priorities of the E&T2010:

1. Making lifelong learning a reality;
2. Developing school education;
3. Developing VET;
4. Developing higher education;
5. Key competences among young people;
6. Improving equity in education and training;
7. Employability;
8. Investment in education and training.

The education is not (at least not explicitly) part of the *acquis communautaire* for the EU accession. Nonetheless, the annual

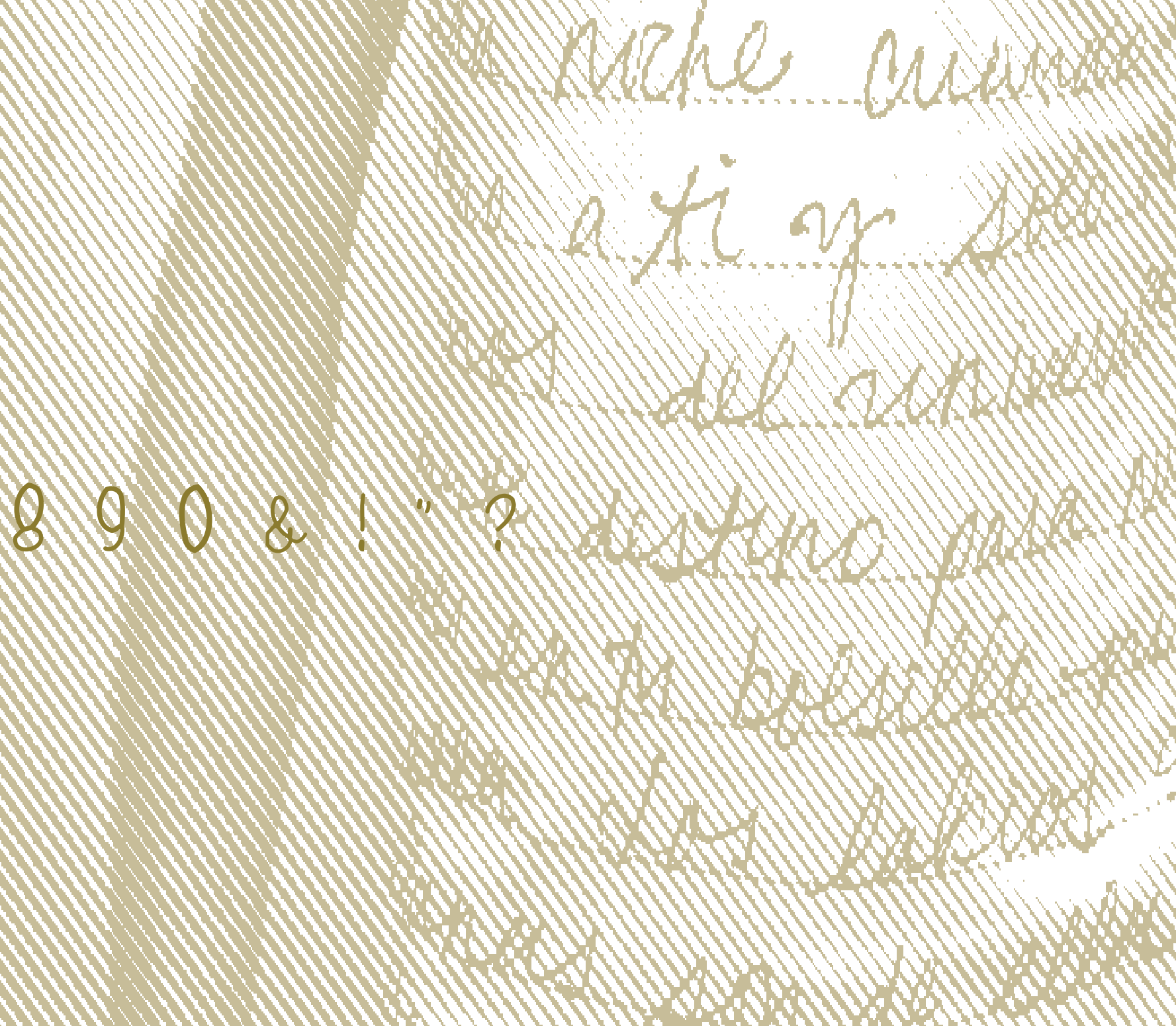
5 The term "benchmark" is used in EC education and training 2010 to refer to concrete, measurable targets. The following are the 16 core indicators for monitoring progress towards the Lisbon objectives in education and training: (1) Participation in pre-school education; (2) Special needs education; (3) Early school-leavers; (4) Literacy in reading, mathematics and science; (5) Language skills; (6) ICT skills; (7) Civic skills; (8) Learning to learn skills; (9) Upper secondary completion rates of young people; (10) Professional development of teachers and trainers; (11) Higher education graduates; (12) Cross-national mobility of students in higher education; (13) Participation of adults in lifelong learning; (14) Adult skills; (15) Educational attainment of the population; (16) Investment in education and training.

6 European Council (2007), *Council Conclusions on a coherent framework of indicators and benchmarks for monitoring progress towards the Lisbon objectives in education and training*, 2007/C 1083/07, Brussels available at: http://register.consilium.europa.eu/pdf/en/07/st10/st10083.en07.pdf

EC progress report for Macedonia assesses also the progress made in national education and training system (Chapter 26). As a candidate-country, the Republic of Macedonia is called to expand and improve investment in human capital and adapt education and training systems in accordance with the new competence requirements.

EC pre-accession assistance to the Republic of Macedonia is aiming to support the country's efforts to comply with the Copenhagen criteria and attain the main objectives of the Lisbon Strategy. As defined by the EC with the Multi-Annual Indicative Planning Document 2007-2009 (MIPD), the "activities of the country related to education and training should aim at modernizing education and training systems, provide access to education for ethnic communities and develop adult education"[7]. Modernization of the Macedonian universities, through their interlinked roles of education, research and innovation is a core condition for successful shift towards knowledge based society.

7 European Commission (2006), *Multi-annual Indicative Planning Document 2007-2009* (MIPD) The Former Yugoslav Republic of Macedonia, p.3, 4 September 2006



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Chapter 3

IS MACEDONIAN EDUCATION ON TRACK?

Performance of Macedonian education against the 5 EU benchmarks on education and training

3.1. EU Benchmark: Early school leavers

Table 1.

EU Benchmark	2010 target for EU	EU-27 average	Best performing EU country			Performance of the countries from the SEE region		Republic of Macedonia
			SI	CZ	PL	HR	BG	
Early school-leavers[8] (18-24, %)	No more than 10%	17.6% (2000)	7.5% (2000)	5.5% (2000)	7.9% (2000)	8.3% (2000)	20.3% (2000)	32.2%* (2002)
		14.8% (2007)	4.3% (2007)	5.5% (2007)	5.0% (2007)	3.9% (2007)	16.6% (2007)	

** Data source: Eurostat; only available data for Macedonia is from 2002 Census*

EU: Evidence shows that the young people with only lower secondary education are at risk of social exclusion and poverty and less likely to participate in any form of lifelong learning. Despite the progress, EU with 14.8% of early school leavers (ESL) in 2007 is still far from achieving the benchmark of only 10% ESL by 2010. EU calls the States to make additional efforts to produce improvements. Equity in education, especially reducing early school-leaving is high on national governments' policy agendas across the EU, setting quantified national targets and introducing reforms focused on both, curricula and extracurricular activities.

8 The EUROSTAT indicator for Early School-Leaving is defined by three conditions informed by the results of the EU LFS: Those aged between 18 and 24 years, with at most ISCED Level 2 (below upper secondary qualification) and not in education or training (in the last 4 weeks before responding to the LFS)

MK: The National Program for Development of Education 2005-2015 (NPDE, 2006) indicates that only 88.47% of the generation 1997/98 completed primary education on time. NPDE also recognizes that only 69.03% of the generation (1997/8) which started their primary education 12 years ago, completed secondary education. Vertical mobility is alarming, with the biggest dropout of 16.65% being documented at the threshold point from primary to secondary education. The annual % of early drop-outs in primary education is 1.71 % (NPDE 2006, p.105) and almost double in secondary education with 2.84% (NPDE 2006, p. 31)

These adverse trends result in 32.2% of early school leavers (most of them women) in Macedonia in 2002. The EC Progress [report] Towards the Lisbon Objectives in E&T (2007) denotes no data available for Macedonia. The comparable data displayed in table 1. show that Macedonia stands below the EU-27 average of 14.8% and much below the average of all countries from the SEE region: Bulgaria with 16.6% and Slovenia with 4.3% of ESL in 2007 (EU Member States) as well as from Croatia (EU Accession country) with 3.9%. Slovenia and Croatia are at the same time the best performing countries on ESL benchmark in Europe.

3.1.1. Policy Analysis: Early School Leavers

The EU studies[9] on the influence of aspects of education and training on early school leaving conducted across the EU Member States suggests a positive correlation of the length of compulsory education with the rate of ESL, but also warns that it cannot be the only factor considered when policies/solutions are being sought for decreasing the number of ESL. The countries with the highest compulsory education finishing age (18-19 years) like Belgium (with 12.3% ESL) Germany (12.7%) and Hungary (10.9%) are not the best performing countries. The exception is Poland with 5.0% ESL.

The findings also show that the pupil-teacher ratio and class size has no significant effect on the rate of ESL neither does the public and private expenditure on education per student and the ESL rate. It is suggested by the literature that the quality and effectiveness of spending as well as the way education resources are distributed with regard to specific student needs might have a positive impact on early school leaving. For example, the quality factors such as increasing expenditure for particular disadvantaged groups by providing more teachers and have smaller classes might lead to a decrease of ESL rate, especially among disadvantaged groups.

Differentiating the content of post-compulsory education programmes, offering a wider variety of choice as well as more vocational options might increase young people's motivation to

9 Please refer to European Commission DG EAC; GHK (2005), *Study on Access to Education and Training, Basic Skills and Early School Leavers; Lot 3: Early School Leavers,* London, http://ec.europa.eu/education/pdf/doc284_en.pdf

stay longer in school. The studies, however, suggest that the national policies for widening vocational education should assure that vocational directions end in a qualification that is sufficient for entering the labour market. Therefore, attention should be paid to counselling students for the best option, rather than redirecting "weaker" students in vocational directions.

The EU studies recognize that socio-economic characteristics and background have a strong influence on ESL. GHK report[10] hints that "the hypothesis that young people being brought up in a less advantageous socio-economic environment are more likely to leave the school early is strongly supported by the literature". EC Progress Report (EC SEC (2007) 1284, p.140) points out that the "universal access to high quality pre-primary education can be particularly important for reducing inequalities caused by such factors as educational attainment of parents, difference between the language spoken at home and the language of instruction at school, and the socio-economic status of parents".

The National Programme for Development of Education 2005-2015, (NPDE, 2006) of the Ministry of Education and Science of the Republic of Macedonia (MOES) foresees education for all, under equal conditions, irrespective of gender, personal capabilities, ethnic and religious affiliation. It sets out an increase of education coverage of 100% at all levels of education. The National Employment Strategy - 2010, (NES, 2006) sets a goal to decrease early school leavers to a maximum of 10% by 2010 through improving the quality of education and curricula at all levels of education, implementation of VET and reform of three year vocational education, increase of competition through private secondary schools and universities, and introducing measures for elimination of barriers to access and early school leaving.

What implementation patterns support these policies?

Pre-school education in Macedonia involves children from 6 months to 5.5 years of age and is delivered through 52 pre-school public institutions in 180 buildings, concentrated in urban areas and in only 3 villages and in few private pre-school facilities. Only 40 out of 84 municipalities in the whole country have kindergartens. According to the State Statistical Office, the Gross Enrolment Rate in pre-school education was at the level of 20.5% in 2004/05[11]. The optimal use of the existing public pre-school facilities could include an additional 5-6% of the pre-school age children, but even if it happens, it would still result in a very low coverage of 25-26% of all children up to six years of age in the country. Although the number of pre-school age children shows continuous decrease due to the downward demographic trends, the main problem for the extremely low participation rate in pre-school education remains to be the serious shortage of facilities and the parent borne costs for kindergartens. This situation mostly affects the groups inclined to social exclusion: ethnic minorities, unemployed and low income families. Pre-school attainment is lowest among Roma and Albanians.

Primary education in the Republic of Macedonia is compulsory and lasts for 9 years, as regulated by the Law on Primary

10 IBID

11 Source: State Statistical Office(2005), *Pre-school institutions* p.9 quoted in the (NPDE, 2006), p.80

Education. Whilst the Constitution of the Republic of Macedonia[12] declares that "Everyone has the right to education; Education is accessible to everyone under equal conditions; Primary education is compulsory and free of charge" (Article 44, Paragraph 1, 2 and 3), primary education is not really free, since the parents pay for textbooks and other school-related costs. This is incompliant with the UN Universal Declaration on Human Rights[13] (Article 26) and the UN - International Covenant on Economic, Social and Cultural Rights[14] (Article 13, Paragraph 2), ratified by the Republic of Macedonia.

The free textbooks for the social welfare beneficiary students in 2008/9 school year, as well as for free textbooks for all primary and secondary school students as of 2009/2010 should finally change the situation. It is expected that the inconsistencies and the deficiencies in the textbook distribution procedures (from this school year) will be overcome next year (see also Chapter 3.3.1).

The new concept on 9-year primary schooling (3+3+3 years) provides for children to start school at the age of 6. This concept[15] is expected to secure an easy transition from lower to higher grades. The new curricula for the initial grades have been developed with a delay, in a very short period, and started gradual implementation. The observations suggest that the implementation of the new primary education concept started unprepared thus causing confusion among schools, teaching staff and parents. Whether (if at all) the on-going change in the primary school curricula will result with the desired quality effects, and to what extent it will impact ESL; prevent drop-outs and improve the transition rate of students to each subsequent quartile (I-III, IV-VI, VII-IX) should be assessed in the years to come.

The Bureau for Development of Education (BDE) assesses the average pupil teacher ratio in Macedonia as a non-issue with 25,27 for I-IV grade and 24,37 ratio for V-VIII grade in the school year 2004/5. The number of teachers per student varies significantly between schools and municipalities because of the differences in class sizes. The average class size is between 11 and 28.8 for primary schools at the municipal level, and between 24.6 and 34.5 for secondary schools.

The Law on Primary education[16] foresees additional classes for talented students (Article 28) and compensatory classes (Article 27) for low learners as part of the teaching plans and programs,

12 Constitution of the Republic of Macedonia, (1991) Official Gazette of RM, No. 52/91, http://www.sobranie.mk/mk/default.asp?vidi=ustav

13 *Universal Declaration of Human Rights*, G.A. res. 217A (III), U.N. Doc. A/810 at 71 (1948) , http://www.unhchr.ch/udhr/

14 *UN International Covenant on Economic, Social and Cultural Rights*, G.A. res. 2200A (XXI), 21 U.N.GAOR Supp. (No. 16) at 49, U.N. Doc. A/6316 (1966), 993 U.N.T.S. 3, entered into force Jan. 3, 1976 available at: http://www.unhchr.ch/html/menu3/b/a_cescr.htm

15 Bureau for Development of Education, Ministry for Education and Science (2007), *Концепција за деветгодишно основно воспитание и образование* (Concept for nine year primary education) http://www.bro.gov.mk/devetgodisno/Koncepcija_po_javna_rasprava_so_izmeni_i_doplnuvanja.pdf

16 *Закон за основно образование* (Law on Primary Education), Official Gazette No. 103/2008, http://www.pravo.org.mk/download/Zakoni/osnovnoto_obrazovanie_103_19082008

but the issue is whether and how frequently they are implemented into practice. The Law also provides for the possibility for the schools to organize extended stay at school *(prodolzen prestoj)*, but it is not obligatory for all schools and the cost is borne by the parents. The deficiencies in the implementation of these legal provisions, affects mostly the socially disadvantaged and low achieving students who need extra support and who are inclined to leave the school earlier.

The amended Law on Secondary Education[17] provides for compulsory secondary education, extending the years of compulsory schooling in the country. It remains to be seen what would be the policy effects of the Law on Secondary Education on the national ESL rate (see also Chapter 3.3.1). Evidence suggests that the countries with high level of participation in VET upper secondary level usually have the lowest ESL rate. Whilst the advancement of Vocational Education and Training (VET) and adult education are stated as an economic priority of the Government in 2009, the pace of changes in these two areas is slow. (see also Chapters 3.3.1 and 3.5.1).

In the UN Concluding Observations of the Committee on Economic, Social and Cultural Rights[18], (2006) Report for Macedonia, the Committee shares its "deep concerns about the high dropout rate in primary and secondary education, especially at the stage of transition from primary to secondary school, low school enrolment and attendance in rural areas and among Roma children, Roma and Ashkali refugee children, girls from certain Albanian communities, and children with disabilities"...

The risk of Roma exclusion from the education system is the biggest in the country. The percentage of Roma children enrolled in primary education varies between 90-95% depending on the source of information, but only around 45-50% complete primary education. UNDP report on Roma[19] suggests that Roma children start school at the age of 7 at a fairly high rate (91%), but only 63% continue in school at the age of 10 [end of IV grade] The same report records the alarming enrolment rate of only 19% of Roma in secondary education and 1.5% in higher education. According to the REF report[20], only 56% of enrolled Roma students in the country complete secondary education.

Data on the educational attainment of Roma from the 2002 Census suggests that Roma probably account for the biggest share in ESL in the country, which is further correlated with the lowest employment rate. According to the 2002 Census, 90% of the Roma population older than fifteen have either completed

17 *Закон за изменување и дополнување на законот за средното образование* (Law on Changes in the Law on Secondary Education), Official Gazette No. 49/2007, http://www.pravo.org.mk/download/Zakoni/Sub/ID_srednoto_obrazovanie_49_18042007.pdf

18 United Nations Economic and Social Council (2006), Consideration of Reports Submitted by States Parties under Article 16 and 17 of the Covenant: Concluding Observations of the Committee on Economic, Social and Cultural Rights, E/C.12/MKD/CO/1, 24 November 2006 available at: http://www2.ohchr.org/english/bodies/cescr/docs/E.C.12.MKD.CO.1.pdf

19 See: UNDP; Gaber Damjanovska, N., Skenderi ,S., Redzepi, N., Bojadzieva, A. and Cekregi, L. (2006), *National Vulnerability Report for Macedonia - Focus on Roma,* Skopje available at: http://europeandcis.undp.org/uploads/public/file/Report2006-angl-web2.pdf

20 See: Roma Education Fund (2007), *Advancing Education of Roma in Macedonia - Country Assessment and the Roma Education Fund's Strategic Directions*, Budapest, p.7 http://www.romaeducationfund.hu/documents/Macedonia_report.pdf

primary education only (37.4%), have incomplete primary school (28.6%), have no education at all (23.2%) or are still in primary school (0.8%). Only 9.2% of Roma population have completed secondary education, and only 0.3% complete some form of post-secondary education.

The implementation of the Decade for Roma Inclusion 2005-2015, to which the Government has committed itself, apparently failed to show real progress in the field of education. While the Decade Watch Report compares Macedonia favourably with the other countries with regard to the institutional structures it has put in place for the implementation of the Decade, the report concludes that there is "limited actual involvement of the Government and limited use of budgetary resources for Roma inclusion measures and programmes"[21].

The existing education initiatives rely on foreign and donor-financed efforts and are not accompanied by any systemic measures by the Government. Decade Watch Report 2007 Update[22] concludes, yet again that "little progress has been made [in education] towards pro-active engagement of government institutions" and the "activities have overwhelmingly been dependant on external funding..."

The scholarships provided by the Government for all Roma first year secondary school students in the school year 2008/09, is to be acknowledged as the first systemic measure in education. Lack of viable implementation strategy and absence of internal capacities and monitoring mechanisms however is evident. Due to the fact that scholarship support is not accompanied by any other educational support (compensatory classes, mentoring support etc), this intervention might lead to limited and fragmented results and is unlikely to produce the desired effects.

Although the MOES, Ministry of Finance and the State Statistical Office have made some efforts to design and develop effective EMIS (Education Management Information System) in the period 2005-2007, the stage of its implementation is unknown. Whether and when (if at all) the EMIS will become operational is still disputable. Data collection on enrolment and attendance at schools appears to be weak and inaccurate, usually not checked and tracked systematically throughout the year. Since the per capita funding mechanism (and also the number of employed teachers) is based on the number of students, i.e. on enrolment rather than attendance, there is a tendency among the schools to keep inaccurate data on the number of enrolled students, including

21 Source: Decade Watch; World Bank; OSI (2007), *Decade Watch: Roma Activists Assess the Progress of the Decade of Roma Inclusion, 2005-2006*, Budapest, p.38. The report refers to 2005 and 2006 and the ranking is based on a range of indicators covering: availability of action plans with indicators and targets and associated tracking and reporting mechanisms; institutional arrangements for decade implementation and government measures across the four areas of education, employment, health, housing, including data availability and collection, as well as the availability of EU-compatible anti-discrimination legislation
Available at: http://demo.itent.hu/roma/portal/downloads/DecadeWatch/DecadeWatch%20-%20Complete%20(English;%20Final).pdf

22 See: Decade Watch; World Bank; OSI (2008), *Decade Watch: Roma Activists Assess the Progress of the Decade of Roma Inclusion, 2007 Update* available at: http://demo.itent.hu/roma/portal/downloads/DecadeWatch/DecadeWatch%202007%20Update%20-%20Final%20(30-07-08).pdf

those who do not attend classes at all, or who have dropped out of school (most of them Roma or disabled children). The schools fail to manage the increasing trend of great absenteeism among students, as well as huge drop-outs.

Parents whose children do not attend or drop out from school are penalized (under the Law on both, primary and secondary education), however evidence that this policy has resulted in greater participation and bigger retention rate of Roma in primary education does not exist. The key question here is: If it doesn't work at primary school level, why would it be differently for secondary education? The probability of the Government's policy on compulsory secondary education to result in even bigger percentage of Roma dropping out earlier - in primary education – is very high since it is a way to avoid penalties for the "obligation" to continue at secondary level.

3.1.2. Policy Recommendations: Early School Leavers

- The Government should develop school tracking systems and system for collection of accurate national statistics on ESL using the Eurostat methodology. An in-depth research analysis of the reasons for early school leaving must be conducted as a departure station for setting up a realistic national ESL target. The regional, gender, ethnic and other disparities must be referenced and adequately analyzed and addressed in the research study;
- The Government is urged to adjust the target of 10% of ESL (determined with the NES, 2006) to be reached by 2010 and to set up a more realistic one, based on the national ESL data collected. Specific action plans with measures on how the target will be achieved should be developed, taking into account the ESL research findings data, experience from other EU countries and the recommendations in this paper;
- The Government should undertake specific measures to ensure 100% access rate (of the relevant age cohort) in primary education, as a pre-condition for vertical mobility through the formal education system. It should be accompanied with concrete measures to prevent the high drop out rate among different vulnerable groups (children from remote rural areas, girls, Roma, Macedonian-Muslims);
- The Government should ensure consistent implementation of the compensatory classes for low achieving students envisaged with the Law on Primary education, and consider development and implementation of other concrete programmes and measures for prevention of school drop outs through supplemental services and other forms of alternative education;
- The Government should make considerable efforts and finance those who have already left education without sufficient labour market skills by offering a wide range of tailor-made education and training opportunities.

3.2. EU Benchmark: Low achievers in reading

Table 2.

EU Benchmark	2010 target for EU	EU-27 average	Best performing EU country			Performance of the countries from the SEE region		Republic of Macedonia
			FL	IE	NL	BG	SI	
Low Achievers in reading	At least 20 % decrease compared with 2000	21.3% (2000)	7.0% (2000)	11% (2000)	11.5% (2000)	40.3% (2000)	N/A (2000)	63%* (2000)
		24.1% (2006)	4.8% (2006)	12.1% (2006)	15.1% (2006)	51.1% (2006)	16.5% (2006)	

** Macedonia participated in PISA + survey in 2000 that is taken as the baseline reference year for measuring progress*

EU: Acquiring basic competences is the first step to participation in a knowledge-based economy. Low achievers in reading benchmark is measured by the percentage of 15-year old pupils with reading literacy proficiency level 1 and lower on the Programme for International Student Assessment (PISA) reading scale (1 being the lowest and 5 the highest). Countries like Finland, Ireland and Netherlands are the best performers with only 11% or less low performers in 2000. Nevertheless, the general tendency of the growing percentage of low achievers at PISA survey in 2006 is evident and is becoming an issue for intellectual debates across Europe.

MK: Macedonian students performed poorly in reading literacy on PISA survey conducted in 2000, with 63% performing level 1 and below (35% performed below level 1 and 28% reached level 1). 24% of Macedonian students reached level 2, 11% level 3 and only 2% level 4. None of the Macedonian students reached the level 5 in reading literacy survey[23]. Only Albania from the countries in the region performed worse, with 71% of the students performing at level 1 and below. The Republic of Macedonia is at the bottom of the table and among the three countries (together with Albania and Peru) with the highest percentage of students below level 1. For comparison, Macedonia has the similar percentage of students performing under the lowest level 1 with the best performing EU country Finland where 32% of the students reached level 4.

23 Source: Redzepi, L., Andonova-Mitrevska, T., Samardzik-Jankova, T. (2004), *ПИСА 2000 - Постигања на ученицише во Рейублика Македонија* (PISA 2000 – Student Achievements in the Republic of Macedonia), Bureau for Development of Education, Skopje

3.2.1. Policy Analysis: Low Achievers in Reading

Evidently, the international assessment studies PISA and PIRLS suggest that pre-school is positively related to later academic achievement among 4th graders (PIRLS) and 15-year-olds (PISA). Data from TIMSS (2003) confirms this observation.

The EU research studies[24] also provide evidence that the education systems can and must compensate for different socio-economic backgrounds of students. Although the results from PISA 2003 confirm that socio-economic background matters significantly for student academic performance, they also point out that the degree to which it matters can be affected by educational policies and approaches that focus on providing all children - irrespective of their background - with high quality education.

PISA findings suggest that the schools with a high degree of budget autonomy, responsible for appointing and dismissing teachers, developing course contents, and deciding which courses to offer, are more likely to be innovative and push themselves harder to succeed with students who have learning difficulties. These issues positively correlate to the average student performance and are perceived as fruitful development paths for further improvement of primary and secondary education in Europe. At the same time, increased privatization of school systems is advised to be approached cautiously, as evidence on its effects on student performance is inconclusive. Research data suggests that, contrary to expectations, lack of school resources for instruction do not affect students' average performance.

The cases of Latvia and Poland that undergo extensive curricula and pre-service teacher training reform, advice that the educational system can be reformed with significant positive effects on average PISA achievement scores.

Analyses of PISA 2000 data (Fuchs and Wössmann 2004a) suggest that centrally set (external exit) exams may increase the performance of autonomous schools, serving as a tool for school accountability. Data from PISA 2003 suggests that "testing used as a tool in the learning process, i.e. teacher-developed tests, is also positively related to student performance"[25]. Therefore, studies recommend policy-makers to distinguish between testing for accountability purposes and testing as part of the learning process. The external national student on-line assessments announced by the Macedonian Government for the end of this school year (2008/9) should be taken cautiously, since there are many ongoing disputable issues. First, the computers are not installed in half of the primary schools and the students have not yet started to use them, so they might face difficulties in adjusting from paper to computer and on-line testing. Second, it is too ambitious for all technical pre-conditions for testing to be fully ensured before the end of this school year, including the instalment of all computers in all schools by the end of the school year. Third, it is unrealistic to expect for the BDE and the State Assessment Center to prepare such a huge number of good quality multiply choice - tests (in every subject) in such a short

24 See: Haahr, J.H., Nielsen, T. K., Hansen, M. E. and Jakobsen, S. T. (2005), *Explaining Student Perfomance, evidence from the International PISA, TIMSS and PIRLS surveys,* Danish Technological Institute, European Commission's Directorate-General for Education and Culture, Brussels, p.98-103, http://ec.europa.eu/education/pdf/doc282_en.pdf

25 IBID p. 15

period of time. Last, but not least, the purpose of this expensive and time-consuming effort is questionable since students' achievements at these tests will be used as the only criteria for teacher assessment.

The World Bank Public Expenditure Review Report 2008 for Macedonia[26] recognizes poor performance of Macedonian students in all international assessments (not only PISA, but also PIRLS, which assesses children in the fourth year of formal schooling on a range of reading comprehension strategies, and TIMSS, which assesses mathematics and science achievement at either the fourth - or eighth-grade level, or both). The WB report therefore points out that the level of skills and knowledge of Macedonian students lag behind those of students in other countries[27].

According to OECD report[28], students at the lowest level of proficiency (1) - where the majority Macedonian students ranked - are capable of "completing only the least complex reading tasks developed for PISA, such as locating a single piece of information, identifying the main theme of a text, or making a simple connection with everyday knowledge". Students performing below level 1 are therefore not likely to be competent at even the most basic type of reading. As the EC progress report[29] from 2005 points out "While performance at level 1 or below cannot be directly equated with illiteracy, it is safe to assume that students at this level of attainment (especially those below 1) will experience serious difficulties when dealing with written information and thus with any learning process dependent upon written material".

87% of Macedonian students score below level 3. Since only individuals who attain a score equal or higher than 3 are considered able to function adequately in a modern workplace, it is save to conclude that the extremely poor performance of Macedonian students at PISA implies poor learning outcomes and ineffective educational system in Macedonian.

The statistics from the recent national study[30] show that more than half (or 70%) of the total number of Macedonian primary school students achieved the highest (excellent) and very good results at the end of 2004/05. (52.44% from the total number of I-VIII grade students attained excellent results, 17.81% achieved very good results, 15% achieved good results, whereas the number of students with only satisfactory results is insignificant). These impressive achievements of primary school students are totally opposite, controversial and do not match with the results

26 World Bank (2008), *Public Expenditure Review Report for Macedonia 2008*, World Bank Report No. 42155-MK http://wwwwds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2008/03/03/000333038_20080303051431/Rendered/PDF/421550ER0P09621isclosed0Feb02802008.pdf

27 IBID, p. 10

28 OECD (2004), *Learning for Tomorrow's World – First Results from PISA 2003*, http://www.oecd.org/dataoecd/1/60/34002216.pdf

29 European Commission (2005), *Progress Towards the Lisbon Objectives in Education and Training*, Commission staff working document, SEC (2005)419 (Brussels, 22.3.2005) p.38 http://ec.europa.eu/education/policies/2010/doc/progress08/report_en.pdf

30 Bureau for Development of Education, Ministry for Education and Science (2007), *Концепција за деветгодишно основно воспитание и образование* (Concept for nine year primary education) p.44 http://www.bro.gov.mk/devetgodisno/Koncepcija_po_javna_rasprava_so_izmeni_i_doplnuvanja.pdf

obtained on the international study assessments (PISA, TIMSS, PIRLS). The question here is how can excellent students perform so poorly at these assessments?

The 9-year primary education concept concludes that "a very small part of education and teaching is connected with everyday life and develops practical student skills"[31] recognizing the need for changing the monitoring and assessment system. On the other hand, what causes concerns is how the BDE will develop 154 curricula for primary education and 280 new curricula for secondary and post-secondary education within in a period of one year[32]? Furthermore, how will the good quality of the curricula be ensured?

Macedonian primary education system fails to provide necessary support to low achieving students and to children with special needs. The concept also recognizes that most of the schools are hesitant to include children with special needs in the regular teaching process, since they haven't the necessary conditions and resources to adjust to their needs (there is lack of competent teaching staff and support services).

The World Bank Public Expenditure Review Report 2008 for Macedonia points out that "although learning outcomes are broadly correlated with the level of economic development, Macedonia's learning outcomes are worse than among countries with similar levels of income per capita". The same report also adds that "poor outcomes seem to result from insufficient instructional time, low level of spending on key quality inputs, and the 'tracking' system under which students at the end of primary education need to decide whether to attend general or vocational secondary schools".

The reform of pre-service teacher training has never been a priority on the education policy agenda. Besides the efforts for curricula reform in line with the Bologna principles undertaken with foreign aid and the TEMPUS programme, the general observation is that the quality of pre-service teacher training education is low and not adapted to the new competence requirements. Insufficient and inadequate practice at the university produce lower quality of (future) teachers, perpetuating low quality of teaching instruction in the formal school education system.

The general policy framework for teacher training and professional development is threatened by the lack of state funds causing serious impediments to consistent policy implementation by the schools, coupled by huge disparities in the implementation of education decentralization. The existing in-service teacher training provision focused on child-centred and critical thinking teaching methods is primarily initiated and supported through donor funded projects[33] and the EMP (Education Modernization Project of the Ministry). However, the effects on improving teaching practice and student performance have not been assessed yet, thus perceived as limited. The sustainability of these projects remains disputable.

31 IBID, p. 46

32 Government of the Republic of Macedonia, *Буџет на Република Македонија за 2009* (Budget of the Republic of Macedonia for 2009) p.95-96, December 2008, http://www.finance.gov.mk/mk/budget/budget_2009_final.pdf

33 USAID, FOSIM, various international and domestic NGOs, etc.

3.2.2. Policy Recommendations: Low Achievers in Reading

- Since the PISA assessment was not repeated in the Republic of Macedonia, the progress of Macedonian students and the national trend in reading literacy cannot be measured. Therefore, it is highly recommended for the Government to participate in the PISA assessment in 2009;

- Student achievements at international testing mirror the performance of the national education and training systems. The extremely poor performance of Macedonian students requires comprehensive and thorough education reform, with special emphasis on curricula and teacher training quality improvements.

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3.3. EU Benchmark: Upper Secondary Attainment

Table 3.

EU Benchmark	2010 target for EU	EU-27 average	Best performing EU country			Performance of the countries from the SEE region		Republic of Macedonia
			CZ	PL	SI	HR	BG	
Upper Secondary Attainment[34] (20-24, %)	At least 85%	76.6% (2000)	91.2% (2000)	88.8% (2000)	88.0% (2000)	90.6% (2000)	75.2% (2000)	65.4%* (2002)
		78.1% (2007)	91.8% (2007)	91.6% (2007)	91.5% (2007)	94.6% (2007)	83.3% (2007)	

** Data source: Eurostat; the only available data for Macedonia is from 2002 Census*

EU: The educational attainment of at least upper secondary education is understood as the necessary minimum for active participation in the knowledge based-economy. In most Member States, the rate of young people in the age group 20-24 with at least upper secondary education has shown a steady increase. It has risen from around 50% of the population in the early 1990s, to some 76% in 2000. Currently, the best performing EU countries (Czech Republic, Poland, Slovenia and Slovakia) show that they have reached over 90% upper secondary attainment. Portugal and Malta have the lowest completion rates in the EU, but are showing substantial progress with an increase by over 10%.

MK: Eurostat statistics for Macedonia indicates that only 65.4% of the population aged 20-24 in 2002 has completed at least upper secondary attainment, with slightly higher proportion of men compared to women. 2002 Census data on the educational attainment shows that almost half of the population or 46.1% is either without any education (4.2%) or have not completed primary education (6.8%) or have completed only primary school (35.1%). The secondary school graduates participate with 36.9% and 3.2% of the population is with pre-university, college-level education. Only 6.5% of the population in the Republic of Macedonia have completed higher education. There is a huge deficit of highly qualified people in Macedonia which results with an enormous unemployment rate of 36.3% in 2006 and 35.2% in 2007[35] in the country.

34 According to the ISCED coding, the educational attainment is classified as follows: low education=ISCED levels 0, 1 and 2. Upper secondary attainment is defined as percentage of 20-24 years olds with al least upper secondary education;

35 Source: LFS ILO quoted in: Ministry of Finance of the Republic of Macedonia (2008), *Annual Economic Report of the Republic of Macedonia for 2007* p.56

3.3.1. Policy Analysis: Upper Secondary Attainment

Many studies provide evidence that developing and modernising school education requires resources for investing in teachers and in their training; for ensuring ICT resources in all schools; for implementing organisational changes and ensuring good quality assessment systems. The Conclusions of the Council on efficiency and equity in education and training (2006/C 298/03) particularly recognise that "the quality of school leadership... [is one of the] key factors in achieving high quality learning outcomes." Some evidence indicates that school directors have more impact on student performance if they focus on promoting effective teaching (Barber, M. and M. Mourshed, 2007). Literature review shows that the salary level and the progression over time strongly affect the supply of teachers and are crucial in attracting and retaining in the profession. On the other side, as stated in the EC DG EAC Study[36] on Mobility of Teachers and Trainers (conducted by GHK, 2006), the demand on and for teachers are being affected by "the new subjects in the school curricula; changing and increasing workloads as well as the increasingly diverse pupil population [...]". Education International[37] stresses that only properly qualified teachers should have the right to teach, indicating that lifelong learning teacher training programmes and proper government planning to avoid teacher shortage and overcrowded classrooms are essential conditions for the delivery of good quality education.

Back in April 2008, the EC presented plans for a Europe-wide credit system in vocational education and training, called ECVET, which is fully compatible with ECTS in higher education and the national systems in vocational education and training. EC's proposal in the form of a recommendation has been submitted for approval to the European Parliament and the Council. ECVET is intended to support citizens' mobility and gives them better access to lifelong learning, whether in formal, non-formal or informal contexts. It would make it easier for citizens to get formal recognition of knowledge, skills and competences they have gained in another country. Member States are encouraged to sign up to this voluntary scheme that does not seek to replace national systems but to facilitate the transfer between them. EC has also put forward a separate Recommendation for European Quality Assurance Reference Framework (EQARF), as a new reference tool that would help Member States exchange best practice in vocational education and training policies.

The current secondary school student structure in Macedonia recognizes that less than 40% of the students attend gymnasium (general academic courses) while the remaining 60% of students attend vocational schools (three and four year VET). According to the Government Strategic Coherence Framework 2007-2013, "the gross secondary school enrolment rate in 2002 was 56.5%"[38], while 69.03% of the relevant age cohort completed secondary education in 2002/03.

36 European Commission DG EAC; GHK (2006), *Study on Key Education Indicators on Social Inclusion and Efficiency, Mobility, Adult Skills and active Citizenship*, London, p. 54. http://ec.europa.eu/education/pdf/doc258_en.pdf

37 Education International http://www.ei-ie.org/ *(last updated February 2009)*

38 Source: State Statistical Office/ 2002 Census Data, taken from: Government of RM, Ministry of Finance (2007) *Government Strategic Coherence Framework 2007-2013* p.21

The increase of secondary education coverage is one of strategic goals of the country foreseen with the NPDE. The Government policy on compulsory secondary education was introduced as of 2008/9 school year with the expectations to increase educational attainment on a national level. In the budget for 2009, the Government indicates "the preparation for the concept for compulsory secondary education" as one of the BDE tasks to be performed under vocational and post-secondary education in 2009. Nevertheless, it remains unclear under which concept of secondary education the new secondary school entrants were enrolled in the current (2008/9) school year? The Government tends to introduce systemic structural changes in secondary education without prior adequate preparations and analysis and/or research made on the short and medium-term policy implications, including the time needed for good quality curricula revision, proper teacher training and decentralization implications. This policy may have consequences on the decentralization process and may lead to re-centralization. The responsibility for secondary schools is under the competence of the local municipalities who blame MOES for not transferring even the historical costs for schools[39]. They perceive this as "imposed" policy that could seriously hinder the decentralization process.

MOES announced[40] that 95% of primary school graduates enrolled secondary school (over 25,700 out of 27,286 students) in 2008/9 school year, assessing it as very high transition rate compared to the 90% in 2007/8 and 88% in 2006/7. The question that arises is where do the other primary school graduates come from and why were these students not enrolled? Furthermore, what was the net intake rate (NIR)[41] in secondary education in 2008/9? Since the education statistics[42] indicates the alarming enrolment rate of Roma of only 19% in secondary education, it is safe to assume that Roma students have the biggest share in the primary school graduates who didn't enrol secondary school. As pointed out in Chapter 3.1. (on ESL) the students from rural remote areas - Macedonian Muslim and girls from Albanian ethnic community - are the other most vulnerable categories of students inclined to leave the school earlier.

The measures of the Government for free transportation and accommodation only for the 1st year secondary school students (and not for all, 1st-4th year of secondary school students) might be disputable from the aspect of equity, since the Law provides for free secondary education for all students. Furthermore, these measures along with the measure of free textbooks for students whose parents are social welfare beneficiaries apparently did not bring the desired effect of 100% enrolment of primary school graduates in secondary education. The measures for free text-

39 OSCE (2006), *Summary Report on the Findings of the survey on the implementation of the process of decentralization*, OSCE Spillover Monitor Mission to Skopje, Skopje http://www.osce.org/documents/mms/2006/07/20681_en.pdf

40 Source: Government of RM (2008), Ministry of Education and Science, *PPT presented at the press conferences for 100 days of the Government on 06.11.2008* available at: http://www.mon.gov.mk/

41 Net Intake Rate (NIR) is the number of new entrants in the first grade of primary or first year of secondary education who are of the theoretical primary / secondary school entrance age, expressed as a percentage of the population of the same age. Source: UNICEF definition of indicators

42 UNDP(2006), Gaber Damjanovska, N., Skenderi ,S., Redzepi, N., Bojadzieva, A. and Cekregi, L. *National Vulnerability Report for Macedonia - Focus on Roma,* Skopje, http://europeandcis.undp.org/uploads/public/file/Report2006-angl-web2.pdf

books introduced under the separate Law on Textbooks[43] as of 2009/2010 school year for all (primary and secondary school) students are commended, however, consistency and efficiency in the implementation is recommended.

The VET reforms continue very slowly after the pilot interventions by EC-PHARE, CARDS and the German donor agency GTZ. The VET Center is not fully operational. The gap between the world of education and the world of work has deepened due to the very week (or non existent) links with the industry and the companies. The sustainability of the donor-funded projects for curricula revision and development, reinforcing students' carrier counselling and work practises beyond the project years is questionable.

General working conditions at schools also affects the students learning prospects and project the low image of the teaching profession in Macedonia. Although the Government started to invest in school repairs, the infrastructure remains technically poor with different level of equipment. The variety of differences in the school conditions can be particularly seen across the municipalities.

Most countries are experiencing a trend towards the integration of special needs children into mainstream education, rather than increasing the number of special schools. Macedonia has made modest efforts in this direction, with small changes in mainstreaming of special needs children.

The increase in the compulsory ending age with the introduction of the compulsory secondary education increased the general demand for teachers in Macedonia, especially for vocational teachers. The fact that 30.9% of the teachers[44] in 2005 at ISCED level 1-3 are over 50 years of age, and an additional 4.1% are over 60 years, imposes the actual need to replace 1/3 of the national teaching pool in the nearest future. Subsequently, the need for in-service teacher training will increase even more. At the moment, the information on teacher participation in the professional development programmes is fragmented and inaccurate.

Professional development of teachers and school directors is compulsory with the new Law(s) on Primary and Secondary Education. It is the responsibility of MOES and the BDE to create an annual program for professional development of teaching staff to support education reforms and to ensure necessary funding for implementation (Article 92 of the Law on Primary Education). On the other hand, there is no "visible" core funding allocated for this purpose in the budget for 2009. Professional development is provided by training programmes that are accredited by BDE. The law also distinguishes a number of levels - teacher carrier development and salary increase depending on the carrier progression. Nevertheless, the transitional and final provisions of the Law on Primary Education provides for its actual implementation much later in 2011, which suggests that there is lack of resources and real political will to move forward with these policy measures. Going even further, the Law entails limitations in the number of teachers that could be promoted annually in a

43 *Закон за учебници за основно и средно образование* (Law on Textbooks for Primary and Secondary Education), Official Gazette no 98/2008 available at: http://www.pravo.org.mk/download/Zakoni/ucebnici_za_osnovno_i_sredno_obrazovanie_98_4082008.pdf

44 Source: EUROSTAT (UOE) quoted in: European Commission (2008), *Progress Towards the Lisbon Objectives in Education and Training*, Commission staff working document, p.42, http://ec.europa.eu/education/policies/2010/doc/progress08/report_en.pdf

school: two employees in each promotion title in schools with up to 50 teachers and three employees in schools with more than 50 teachers. Therefore, the general perception is that the status of teachers remains poor with limited carrier opportunities. Under both laws (on primary and secondary education), remuneration of teachers depends on the deviations of student achievements on external exams from the student achievements at the end of the school year. According to the Law (Article 98 of the Law on Primary Education and Article 70-a of the Law on Secondary Education), the results from the national external student assessment will be used to assess "the objectivity and professionalism of teachers in student assessment" prescribing for 15% salary increase for maximum 20% of the teachers with lowest deviations and 10% salary decrease for maximum 20% of the teachers with highest deviations. In practice, the effects of this policy may prove controversial and result with promotions of low quality teachers (just because there were no deviations of poor performing students at the external exams and at the end of the school year). This simple "match" as criteria does not per se imply good quality, nor does it stimulate teachers to work harder with students. The promotion of teachers on the basis of such external student assessment policy might become a very dangerous tool in the hands of the Government, since the job retention of teachers is in stake (the law provides for dismissal of teachers in cases where significant deviations from the student external assessments are identified for three years in a row). One should stress that the reasons for poor student achievements at the external exams can be various, standing from low quality of teaching (including use of inadequate instructional methods by the teachers and lack of proper pre-service and in-service teacher training), through outdated and low quality syllabus, teaching content and textbooks, to low motivation and poor learning to learn skills gained by the students.

The state budget for education in 2003 was 3.49% of GDP, with gradual decrease of 0.77 % within the period 1996-2003. Primary education accounts for 59.15% of the total education budget and 22.66% for secondary education. This is below EU-25 average of 5.2% on education in 2003. The private spending in education show constant increase due to parents' additional payments on private tutoring, purchasing books and other school supplies for their children, indicating poor quality of formal education and low efficiency of the educational system.

The Government set a target to increase public funding for education to 5% by 2010[45]. Later on, the actual percent went up to 5.9% of GDP for 2008[46]. Very likely this percentage resulted from the high government expenditure on the "Computer for every child" project that is implemented in primary and secondary schools.

While this project is perceived as a positive step towards improving the ICT skills of students, this big government investment per se neither improves efficiency, nor can compensate or alleviate the current inequalities in the schools in terms of quality learning outcomes. The probability of the project "Computer for every child" to fail is very high. Whereas the ex-post training of

45 Government of the Republic of Macedonia, Ministry of labour and social policy (2006), *Национална стратегија за вработување – 2010* (National Strategy for Employment – 2010), Skopje available at: http://www.mtsp.gov.mk/WBStorage/Files/strategija.pdf

46 Source: Vice President of the Government of RM for Economic Issues (2008), *Подобро образование, 04.04.2008* (*Better Education, 04.04.2008*), taken from: http://www.vicepremier.gov.mk/?q=node/195

teachers and development of digital educational contents are underway, most of the installed computers are already out of use (stolen or broken).

3.3.2. Policy Recommendations: Upper Secondary Attainment

- The Government is advised to adjust the target of 75% of people aged 20-24 with upper secondary attainment (determined with NES, 2006), and set a more realistic one to be reached by 2010. Specific action plan with measures for achieving the target should be developed;

- The country level differences across the schools in terms of infrastructure and learning conditions, quality of teachers, quality of VET etc. need to be taken into consideration in channelling state funds in school infrastructure and equipment;

- VET Reforms must speed up to make up for the delays and they must be accompanied with proper financial and human resources for the VET Center to move forward with the comprehensive curricula reform and development of post-secondary education. Access to more choices of VET streams must be ensured all over the country;

- The new European Credit Transfer System for Vocational Education and Training (ECVET) and the European Quality Assurance Reference Framework (EQARF), should be taken as a reference framework and embedded into the changes of vocational education and training policies and practises.

3.4. EU Benchmark: Mathematics, Science and Technology (MST) Graduates

Table 4.

EU Benchmark	2010 target for EU	EU-27 average	Best performing EU country			Performance of the countries from the SEE region		Republic of Macedonia
			IE	FR	LT	SI	HR	
MST graduates (per 1000 inhabitants aged 20-29)	Increase of at least 15%*	10.2 per 1000 inhabitants (2000) 13.0 per 1000 inhabitants (2006) For more than 25 % increase since 2000	21.4 (2006)	20.7 (2006)	19.5 (2006)	9.5 (2006)	6.0 (2006)	3.5 (2000) 4.0 (2005) 4.3 per 1000 inhabitants (2006)

** Data source: Eurostat (UOE); Benchmark 2010 is expressed as average annul growth (1.4% per year or 15% in the period 2000-2010)*

EU: The European Council has set two objectives: to bring about a 15% increase in the number of mathematics, science and technology (MST) graduates in these fields by 2010 and at the same time to redress the imbalance between women and men. The EC progress report 2008 on the education indicators and benchmarks suggests increased number of tertiary MST students by more than 29% since 2000. Best performing countries, with regard to MST graduates per 1000 population aged 20-29 are: Ireland, France, and Lithuania. In 2006, Cyprus (with 27.0%), Poland (20.5%), Czech Republic (18.8%) and Germany (11.0%) are the countries with highest growth in MST graduates since 2000. As a result of the growth rate of 4.4 % per year since 2000, EU-27 achieved the growth aspect of the benchmark even ahead of schedule, reaching a total of 886 000 MST graduates in 2006. The female share of MST graduates has increased slightly at the EU level, from 30.7% in 2000 to 31.6% in 2006, showing insignificant improvement in the gender balance. There are considerable differences across the EU countries between the shares

of female and male MST graduates (Bulgaria and Estonia have the highest share of female graduates with 41.2 % and 42.9% respectively). Besides the achieved objective on MST graduates, the EC is pointing out that the increase in MST graduates has not been reflected in sufficient employment of researchers in many EU Member States or for jobs in other countries (European Commission, 2005).

MK: Although Macedonia is lagging behind EU Member States, it must be noted that this is the only benchmark where the EC reports progress for Macedonia in both, the number of MST students and the number of MST graduates since 2000. The EC recognizes the increase of the number of MST students in Macedonia (from 12000 students in 2000 to 12 600 in 2005 and the slight decrease of 12400 MST students in 2006). This results in a growth rate of only 0.5 % per year for the period 2000-2006. There is a slight increase in the number of MST graduates (from 1200 in 2000, to 1300 in 2005 and 1400 in 2006, showing an average annual growth in graduates of 2.6% in the period 2000-2006 and a significant growth of 7.3 % in 2006[47]. Enrolment rate in science and technology for women is 30% less than man in 1995, and getting closer in 2005. The female share in the number of MST graduates is high compared to EU-27 average (41.6% in 2000, 46.9% in 2005 and 46.0% in 2006) implying a lower drop-out of female MST students in Macedonia.

3.4.1. Policy Analysis: Mathematics, Science and Technology (MST) Graduates

Development of higher education (HE) focusing on the knowledge triangle (education, research and innovation) plays a key role in boosting jobs and growth. The Bologna process is the European political framework that underpins the development of a knowledge society, aiming to create a European Higher Education Area (EHEA) by 2010. Bologna seeks to: ensure employability of graduates already after the first cycle, increase the mobility in the EHEA and ensure the recognition of qualifications and periods of study. Increasing transparency and trust among the educational systems is based upon quality assurance of programmes and institutions. The Joint European Diploma Supplement to all graduates and the ECTS (in the EHEA) are seen as the main tools for transparency and as possibilities to gain credits within informal and non-formal education. European dimension to programmes and joint degrees by institutions from different countries are other tools for reaching the Bologna goals. Each of these elements has a national and a European dimension.

From a EU perspective, there is also an obvious link between the Bologna Process and the Copenhagen Process on enhanced European co-operation in Vocational Education and Training, launched in December 2002. The Commission has taken several initiatives to establish synergies between both processes in important fields such as transparency of qualifications (EUROPASS), Credit Transfer, Quality Assurance (QA) and the European Qualifications Framework (EQF).

47 Source: DG EAC, calculations based on Eurostat (UOE) data taken from: European Commission (2008), *Progress Towards the Lisbon Objectives in Education and Training*, Commission staff working document, p. 77
http://ec.europa.eu/education/policies/2010/doc/progress08/report_en.pdf

The Commission supports most of the Bologna Action lines, e.g. through initiatives ranging from the ECTS label (promoting transparency of qualifications), to the "Erasmus Mundus" Programme (fostering academic mobility and attractiveness of European higher education on a global scale). The increase of funding diversification, co-operation with industry, research funding mainly directed to networks of excellence, increasing interdisciplinarity, intellectual property rights have became also priorities for the decision-makers across the EU.

The Bologna Process Stocktaking Report (London, 2007), recommended Ministers to ..."Set clear policy goals and specific targets for the next period of the Bologna Process, especially in the areas of the third cycle, employability, recognition, lifelong learning, flexible learning paths and the social dimension". The report called the countries to promote progress across all Bologna action lines and suggested working towards full implementation of national qualifications framework (NQF) based on learning outcomes by 2010. It is expected for the countries to make formal links between Bologna and the ENIC/NARIC network on the implementation of the national action plans for recognition. European Council in March 2008 called the Governments "to remove the barriers for free movement of knowledge" by enhancing the cross-border mobility of students, researchers, scientists and teaching staff, making the labour market more open and competitive for the European researchers and by further implementation of the higher education reforms.

Quality in HE, tertiary education participation and graduation rates, investment in HE and the mobility of students are the core indicators monitored under the EU strategic priority on Development of HE of the Education and Training 2010. The number of MST graduates is the EU benchmark to be achieved by 2010.

The student-age population in EU shows a slight decrease, with differences between the EU Member States. In spite of this trend, there is an increase in the tertiary education participation rate in EU with growth of 2.8% per year and growth of 17.8% over the period 2000-2006. According to the EC report, 1.7 million students with foreign citizenship were enrolled in tertiary education in EU-27 in the academic year 2005/6, which represents an average annual increase of 13.4% over the six years period (2000-2006). The number of HE graduates in the EU-27 follows the same improving trend, noting an increase by 37% since 2000, and 5.4% growth per year for the period 2000-2006.

The quality of HEIs is becoming permanent concern for EU education policies, evolving from the creation of European Association for Quality Assurance in Higher Education[48] (ENQA) in 2000, to the establishment of European Quality Assurance Register in Higher Education in March 2008. The international rankings of the universities have also evolved in the last few years, applying a wide range of criteria for measuring excellence. Besides the lack of consensus on the quality indicators and the other limitations of the both international external university rankings (Academic Ranking of World Universities – ARWU) from Shangai's Jiao Tong University[49] and the World University

48 See : ENQA, http://www.enqa.eu/index.lasso

49 See: Shanghai Jiao Tong University Ranking, http://www.arwu.org/rank 2008/EN2008.htm

Ranking[50], (WUR) it is to be noted that only Poland, Hungary, Czech Republic and Slovenia from the new Member States have universities in the top 500 universities at ARWU.

The current level of investment in higher education is 1.3% at EU-27 (both, public and private combined), versus the EC goal for investing 2% of GDP. The public investment in 2004 was around 1.13% of GDP in EU-27, with biggest increases in Greece and Cyprus. Public investments accounts for more than 85% of the amount spent on tertiary education institutions in Europe.

Bologna has been accepted as the main policy framework for the reforms in the higher education sector in Macedonia. MOES has signed the Berlin Communiqué in September 2003 and has committed itself to implement the Bologna requirements according to a European timetable (2010).

Eurostat country statistics suggests an increase of the number of tertiary students in Macedonia from 37,000 in 2000 to 49,000 students in 2005, showing a slight decrease in 2006 with 48,000 students (excluding ISCED level 5A second degrees and ISCED 6 levels). Based on the same source of data, there has been good progress in the country in the proportion of female students entering HE. Proportion of women is higher than the proportion of men, with 120 female students per 100 male in 1996/97 to 126 female students per 100 male in 2000/01. The gender imbalance, however does exist and is mostly visible in the distribution of students by professions, dividing them on "female" and "male" professions. The share of female students is highest in the field of education, arts and humanities and smallest in engineering, manufacturing and construction.

The Ministry of Education and Science announced[51] that 85% of the total number of 20,811 secondary school graduates in the country enrolled in Macedonian tertiary education in the academic year 2008/9, which is higher than ever. At the same time, MOES announced that 14,209 secondary school graduates successfully passed the state Matura exam, whereas a total of 19,128 students were enrolled in the first year of studies at both, private and state university in the country. Having that 85% of the total number of 20,811 secondary school graduates is 17,689 the question that arises is where does this huge difference in the number of students come from?[52]

The secondary school graduates from previous years (when there was no Matura exam as requirement for university entrance) most probably have its small share in this number. Unless the Government operates with inaccurate, much higher figures for transition rate from secondary to university education, it is very likely that this huge difference arises from the universities policies to enrol students with no /or incomplete Matura exam. The latter especially applies to the private universities inclined to accept everyone who can afford to pay the tuition fee, which

50 See: World University Ranking, http://www.topuniversities.com/worlduniversityrankings/results/2008/regional_rankings/top_european_universities/

51 Source: Government of RM (2008), Ministry of Education and Science, *PPT presented at the press conferences for 100 days of the Government on 06.11.2008* available at: http://www.mon.gov.mk/

52 FOSIM calculations: There is a difference of 3,480 students between the number of secondary school graduates enrolled in HE (17, 689) and the number of secondary school graduates who successfully completed the Matura state exam in 2007/8 (14,209).

in turn puts the state universities in an unequal position and creates quasi-competition in student recruitment. Either way, this figure inclines inconsistencies in the government policies in education – for example, the Law on HE allows the universities to enrol students without Matura exam?!? On the other hand, the Concept for the Matura exam clearly states that the selection for university education (p.9) is one of the main goals, while overcoming of double exams at the end of secondary education is one of the main outcomes of the Matura exam policy. This devaluates the costly Matura state exam questioning its real purpose.

The improvement of tertiary education participation rate is most evident with the Albanian community and less evident with the Roma. The opening of the two Albanian-speaking universities in Tetovo (the private SEEU in 2001 and the State University at Tetovo in 2004) contributed in raising the participation rates of the Albanians from 6.68% in 2001/2 to 15.50 % in 2004/5 versus 25.17% share in general population). The smallest progress is noted with Roma (0.31% share of tertiary enrolment in 2004 versus 2.66 % share in the general population). The minority quota for university enrolment does not seem to be effective and does not result in the desired effects for Roma. The low participation and retention rate of Roma in secondary education is the main reason for low participation of Roma in HE.

In terms of equity, enough evidence supports the observation that Macedonian state universities (as well as most of the private universities) are not inclusive for students with disabilities. Although declarative statements for such policies exist, universities make very little effort to enable access and ensure equal treatment (starting from infrastructure requirements for disabled students such as elevators, access ramps etc. relevant ICT equipment for those with hearing and seeing problems etc.). Examples of tertiary education institutions with infrastructure for disabled students and tertiary education staff with different types of disabilities are rare. Physical barriers and inability to receive adequate support services further hinder studying prospects. Disabled students face many limitations not only in accessing HE, but are also treated unequal while at universities. They are badly affected by the scarce resources to HE from the aspect of equal treatment and quality outcomes.

Country statistics also raise questions on efficiency and quality of current HE system. Foreign students accounted for only 0.7% of all tertiary students in Macedonia in 2000 and 0.4 % in 2006, showing an annual decrease of -4.4%. On the other side, the percentage of Macedonian tertiary students enrolled outside the country has increased from 6.2% in 2000 to 11.9% in 2005 and 2006, which can be observed as surprisingly high, especially if we have in mind the current restrictive visa policy for Macedonian citizens. Decrease of the number of foreign students and increase of the number of Macedonian students studying abroad are perceived as trends which need to be analysed and taken seriously by the policy-makers, both implying low level of confidence in the quality of the Macedonian HE system.

Although the number of tertiary graduates per 1000 inhabitants aged 20-29 in Macedonia has increased from 12.2 in 2000 to 17.7 graduate students ISCED level 5 and 6 in 2005 (Eurostat–UOE), Macedonia still has the lowest number of tertiary graduates compared to all other countries in EU-27 (Romania has 45.8;

Croatia 31.6, Slovenia 53.6, and Bulgaria 40.9 graduates in 2005). Statistics[53] also shows that 87.37% of university graduates in 2000, and 78.9 % of students in 2006 graduated after due time in Macedonia, which is very high by international standards.

There is no national target on MST students and graduates, but the Macedonian Government has introduced specific measures to increase the number of MST students in 2007 and 2008 by: increasing the number of state funded places in Mathematics, Natural Sciences and Engineering; by providing state scholarships to 125 students studying information technologies in the amount of 5000 MKD (80 EUR) and by awarding the vouchers for all last year students in the amount of 200 EUR (in 2007) and 250 EUR (in 2008) for purchasing ICT equipment. An opening of new University in Information Technologies in English language was established under a separate law[54] (2008). It was promoted as one of the high priority projects of the Government to start from 2008/9 academic year and the vacancies for the new academic positions were announced. The opening of the university was soon postponed for one year. The most recent proposed amendments to the Law envisage change of the University seat (from Skopje to Ohrid) and decrease of the number of Faculties (from initial 9 to 5 Faculties).

Other countries' experience shows that the preparation for such projects is time-consuming, expensive and requires a clear strategy and strategic leadership based on serious feasibility and/or policy study, which was not (and still is not) the case in Macedonia. Therefore, this haste Government initiative is very likely to fail and turn into an academic scandal. Many questions arise: for example, how will this policy decision affect the two existing state faculties that produce IT engineers (Faculty of Electro-technical Engineering) and IT graduates (Faculty of Natural Sciences) in terms of the academic teaching staff and the number of students, and consequently, the quality of studies.

The other priority Government project in HE is the opening of 12 new branch campuses (or so called dispersed study programmes) and 7 new faculties in the smaller towns nationwide (Veles, Sveti Nikole, Probistip, Prilep, Vinica, Strumica and Radovis), under the umbrella of the existing three state universities. Even if we accept the fact that Macedonia must still respond to an increasing participation rate in higher education, it is difficult from the simple cost-benefit point of view to accept the expansion of the existing HEIs for a total of 1,661 students[55]. Will the envisaged policy outcomes of 1,661 prospective graduates justify the investment? If we agree that "Any institution is bound to be good if the new entering students are well prepared, if the staff, the facilities and equipment are good and if the funding is generous"[56], this Government initiative can be also seriously disputed from the aspect of submission to the usual quality assurance procedures and the minimum quality standards that need to be assured for the studies. In current policy context where the existing state

53 Source: *Statistical Yearbook of the Republic of Macedonia 2007*, State Statistical office of the Republic of Macedonia

54 *Закон за основање Универзитет за информатички технологии во Скопје* (Law on the establishment of a University in information Technologies in Skopje), Official Gazette No.81/2008

55 Source: Government of RM (2008), Ministry of Education and Science, *PPT presented at the press conferences for 100 days of the Government on 06.11.2008* available at: http://www.mon.gov.mk/

56 Council of Europe; Kohler, J. and Huber, J. (eds) (2006), *Higher Education governance between democratic culture, academic aspirations and market forces*, Council of Europe Publishing, Strasbourg

universities are chronically under-financed for many years, this opens up the issue of funding of on-going Bologna related reforms at the state universities.

Compared to the year 2000, when the first Law on HE was enacted in the country, evident progress across the Bologna action lines has been made at the universities. However, the universities still struggle with the full introduction of a three tear-system; learning outcomes based approaches, diploma supplement and ECTS implementation. The number of HEIs introducing 3-year BA studies is increasing, but a huge variety in the length of each cycle within the three-tier degree system is reported by different faculties (3+2+3; 4+1+3; 4+1; 5+2+3; 4+2+3) There is no (EHEA) National Qualification Framework and consequently, the introduction of the ECTS was not linked to the learning outcomes and to (any) key competences the students gain at the end of the course/study programme. ECTS does not ensure mobility of students, neither in a faculty/university level, nor internationally. Student assessment has been changed and adopted for the introduced ECTS principles.

The state budget for Macedonian HE in 2003 represented 0.47% of GDP, which is 2.5% lower than in 2002, whereas the state budget for research and development (R&D) is 0.2 %. This is much below EU-27 average on HE and on R& D and significantly lower that the EU targets on 2 % on HE and 3% on R& D. NPDE has set up a target to increase HE budget to 1 % of GDP by 2010.

Funding remains a key obstacle for implementing the modernization agenda of Macedonian HE. There is constant mismatch of the input-based budget allocations and the real needs of the state universities. Macedonian HE seriously suffers from underinvestment from the private sector that limits further development prospects of universities. The HEIs' revenue from charities, private enterprises, business and organizations is very low and insignificant. Student tuition fees account for a significant proportion of the income of HEIs. Macedonia has no tradition of private[57] sponsorship of HEIs, but in the last few years the funding system of Macedonian HE seems to indicate (from 2003 onwards) greater dependence on the private sector (households), as noted by the increased portion from 43.72% in 1999 to 57.03% in 2005.

Macedonia faces particular challenges with insufficient core research funding. Most of the key policies on Research & Development are in place, but the MOES lacks human capacities to proceed with effective implementation. Basic national statistical indicators on R&D show a downward trend in the number of researchers in the country (from 3,257 researchers in 1998 to 2,589 in year 2003), with a decrease of over 20% in the number of FTE researchers (from 1,892 in year 1998, to 1,464 FTE researchers in 2003). Consequently, the number of FTE researchers on 1000 labour force was also decreasing in the same period (from 2.3 researchers in 1998 to 1.7 researchers on 1000 labour force in 2003). The biggest portion of researchers (or 65.4%) comes from the higher education sector and the smallest from the business sector (only 2.6 %).

57 Private sources include the students (and the households) and non-governmental bodies such as foundations and charities, private enterprises, organizations etc.

The new Law on HE education[58] (2008) provides for "functional integration" of the two state universities in Skopje (UKIM) and Bitola (UKLO) granting legal person status of the universities instead of the faculties. This requires a new internal university organizational setup and management structure. The transformation of the two biggest state universities into "integrated" universities will be a painful process, especially of university-faculty relations.

The Law on HE (2008) introduced other novelties in university governance and new bodies will be established. It is encouraging to see that university Boards will also include representatives from the business, industry, and employers. On the other hand, the overregulation in this sphere may result in a huge and complex governing architecture with too many non-functional redundant national bodies in HE. Although acknowledged as an attempt towards greater transparency, it is sometimes unclear what will be the real mandate and purpose of some of these bodies (for example, new University Board for public trust and cooperation). Furthermore, there are very important national bodies with a more or less clearly determined mandate, but no real power over their decisions and actions as prescribed by the law. This seems to be the case of the Council for Financing of HE where the tendency for Government control through appointment of its president is obvious.

The same is true with the national bodies for quality assurance - National Accreditation Board (AB) and National Evaluation Agency (AE) where the Government changed the members structure and the ratio of people nominated by the universities and by the Government. The Government also appoints a President of both bodies. This can be interpreted as an attempt of the Government to intervene in pushing through its priority projects in higher education (new ICT-university and the dispersed study programmes all over the country).

The quality assurance (QA) system of Macedonian HE is regulated with the Law on HE according to the "general model" of quality assessment (van Vught & Westerheijden, 1993) with the following model elements: (1) national coordinating body; (2) institutional self-evaluation, (3) peer-review external evaluation and (4) published reports. The self-evaluation is performed by the self-evaluation commissions at faculty and university level and the self-evaluation reports are submitted to the EA. The external evaluation and the evaluation of teaching staff are performed by the EA in cooperation with the HEI. So far, the overall participation of students in quality assessment has been formal and insufficient, with no substantial contribution in the evaluation and accreditation processes. The websites of the AB and the EA are not regularly updated that rise additional questions on their transparency. Feedback and monitoring mechanisms are weak and inconsistent and the universities have not gone far beyond formal and obligatory responses to the requirements of external quality assurance. In general, evaluation is applied in a very legalistic manner and not as an important instrument to achieve better quality. Nevertheless, it must be also noted that the universities are becoming increasingly aware of the importance of improving quality and are slowly developing their institutional quality culture. The new law provides for the use of

58 *Закон за високото образование* (Law on Higher Education), Official Gazette No. 35/2008. http://www.pravo.org.mk/download/Zakoni/visokoto_obrazovanie_35_14032008.pdf

external evaluation standards and guidelines already developed and applied by ENQA, which might further trigger quality changes at the HEIs in upcoming years.

The core funds for the AB are provided by the national budget, while administrative and other support is provided by the MOES staff. The operation of both AB and EA is threatened due to scarce of state resources and lack of well-trained core support staff. The funding for the first evaluation cycle in the country was provided by donors. Donor dependency is not a long-term or even a mid-term solution to sustain the process. These issues are serious concerns for capacity and future institutional building and development. It raises the question on whether (if at all) the Macedonian QA Evaluation Agency can fully meet the standards and guidelines for QA in the EHEA in order to be registered in the European Register of Evaluation Agencies.

The "explosion" of new higher education providers in recent years has created a new business branch in Macedonia. The newly emerged offer of higher education degrees created (quasi)competition with traditional, state higher education institutions with submission (at least formally) to the usual accreditation procedure. Once the accreditation is granted, proper quality monitoring is not applied. One side effect is the teaching staff with inadequate competences teaching at part of the private universities.

In the absence of strong national quality assurance procedures and clear policies, criteria and guidelines on quality assessment and assurance, the national university ranking announced as a strategic objective of the Government to be performed "by an independent provider preferably from abroad"[59], should be looked into very carefully. The current international rankings linked to a variety of ranking criteria and indicators have many limitations. Scientists dealing with university ranking alert policy-makers that the application of bibliometric indicators has many methodological and technical problems and therefore improper university ranking might become a dangerous power game in the hands of the Government, especially if the purpose of this ranking will be further allocation of state funds (Van Raan, A.F.J, 2004).

The agency for administration of the integrated life-long learning programme (National Agency for European Education Programmes and Mobility) is implementing the necessary pre-conditions for accreditation very slowly. It still lacks technical and human capacities, organizational infrastructure, assurances on sound financial management control and accounting systems, and procurement and grant awarding procedures. Subsequently, the country still does not have full access to the EU Integrated Life-Long Learning Programme.

59 *Програма за работа на Владата на РМ за периодот 2006-2010* (Working program of the Government of Republic of Macedonia 2006-2010) p.29 http://www.vlada.mk/files/programa_za_rabota_na_vladata_mk.pdf

3.4.2. Policy Recommendations: Mathematics, Science and Technology (MST) Graduates

- A clear national benchmark on the number of MST graduates to be achieved by 2010 must be determined;
- The Governement should increase the level of funding for higher eduication and research to support the reforms. The concept of higher education as a public responsibility responding to societal needs for social cohesion and economic growth requires commitment to long-term and sustainable public funding base. As recommended with EC COM (2002) 779 final, the Government should "put in place policies and incentives to encourage more private investment in education and training as a complement to, not as a substitute for adequate public expenditure";
- The current tuition fee and student aid policies and support schemes (scholarships, loans etc) need to be carefully reviewed and assessed in the light of EU benchmarks related to participation and graduation rate of female students, socially disadvantaged and disabled, older students, targeted study disciplines etc. in order to offset any negative effects arising from tuition fees;
- The state universities need more functional autonomy as the fundamental condition for successful reform. Autonomy should be accompanied by new systems for performing evaluation and accountability measures. Performance indicators must become a common tool for university decision-making;
- A national framework for qualifications compatible with the overarching framework for qualifications in the EHEA and EQF should be developed;
- We call the Government to evaluate its policy on opening dispersed study programmes and new universities all over the country from the aspect of equity, efficiency and quality and see whether it is better to invest in accelerating on-going curricula reforms at the already existing universities focused on curricula reform and quality improvement instead of expanding universities?
- The current national evaluation guidelines and procedures need to be adjusted and revised in conformity with the European Standards and Guidelines on QA developed by the ENQA. The state must ensure that all preconditions for making the Accreditation Board and the Evaluation Agency impartial and fully operational are in place, including adequate human and financial resources. The Evaluation Agency should develop the necessary internal policies and accountability procedures as imperative for fulfilling assigned European standards for QA agencies, without which Macedonian national Evaluation Agency cannot be a ENQA member and registered in the European Register of QA Agencies.
- The Government should invest serious efforts to make the National Agency for European Education Programmes and Mobility fully operational as soon as possible thus being able to employ the specifically requested measures by the Lisbon Council of March 2000 to foster the degree, credit, research and other mobility of students, teachers, trainers and research staff (European Council, 2000, Paragraph 26);

3.5. EU Benchmark: Participation of adults in lifelong learning

Table 5.

EU Benchmark	2010 target for EU	EU-27 average	Best performing EU country			Performance of the countries from the SEE region		Republic of Macedonia
			SE	DK	UK	SI	HR	
Lifelong learning Participation[59] (25-64, %)	At least 12.5%*	7.1% (2000) 9.7 % (2007)	32% (2007)	29.2% (2007)	26.6% (2007)	14.8% (2007)	2.9% (2007)	1.9% (2003) 2.4% (2005)

** Data sources: UOE, LFS*

EU: Increasing the participation in lifelong learning (LLL) is probably the most important challenge for European countries today in the field of education and training. It is essential not only for competitiveness and economic prosperity, but also for social inclusion, active citizenship, employability and personal fulfilment. The EU-27 average of 7.1% of adults who have participated in education and training activities in 2000 has increased to 9.7% that reflects continuous progress. This progress however is assessed as too slow to reach the benchmark by 2010. Best performing countries in 2007 were the UK and the Scandinavian countries (Sweden and Denmark) and Slovenia with 14.8% is among the fastest advancing Member States. The surveys conducted at EU level suggest that adults with high level of education and women are more likely to participate in LLL.

MK: Adult participation rate (age 25-64) in education and training made up only 1.9% in 2003 (ETF, 2003) and 2.4% in 2005 (ETF, 2007), which is far below the EU-27 average performance of 9.7% in 2007 and the Lisbon target of 12.5%. Participation of unemployed in education and training aged 25-64 in 2003 was even more limited reaching only 1.3% (ETF, 2004). In 2003, only 14% of Macedonian adults attained tertiary education compared with the EU15 (22%)[61] (ETF, 2005).

ETF calculations (2006) show that 45% of the population in Macedonia in the age group 25-64 are secondary school graduates (ISCED 3-4), 41% are with low educational attainment (ISCED 0-2) and only 14% are higher education graduates (with

60 Lifelong learning participation: Percentage of population aged 25-64 year olds participating in education and training four weeks prior to the survey.

61 Source: European Training Foundation (2005), *Labour market Review of FYROM* http://www.delmkd.ec.europa.eu/en/whatsnew/2005/06%20Labour%20market%20review%20feb%202005.pdf

ISCED 5-6). The figures for all educational levels are much below the EU average and benchmarks. EU average in 2001 of the EU population age group 24-65 having completed at least upper secondary education (ISCED 3-4) was 65.7%, while the EU benchmark for the same ISCED level is 80% by 2010[62]. There is a strong positive correlation between educational attainment and the employment rate (the employment rate is increasing with the increase of the educational attainment and vice versa). The data from the Macedonian Employment Agency 2006 reveals continuously highest share of non-qualified or semi-qualified unemployed people in the total number of unemployed in the country (51.6 % at the end of 2004 and 52.1% in 2005 to 51.3 % at the end of 2006)

3.5.1. Policy Analysis: Participation of Adults in Lifelong Learning

Education and training policies of Member States increasingly reflect the concern for LLL, covering all types of learning, in all types of places, with all types of instruments and all types of pedagogical approaches, addressed to the whole population with particular emphasis on the special needs of specific target groups.

The main focus is on initial education and working population, on acquiring basic competences, removing obstacles and developing multiple pathways to further learning, linked to formal recognition of competences and guidance and information systems to help the individual negotiate these pathways. Multiple stakeholders (national, regional and local public bodies, social partners, civil society) have shared financial responsibility in promoting and supporting LLL culture centred on the individual.

EC set out a Reference Framework consisting of eight key competences[63] for lifelong learning (LLL) defined as a combination of knowledge, skills and attitudes appropriate to the context. Those are: (1) Communication in mother tongue; (2) Communication in foreign languages; (3) Mathematical competence and basic competences in science and technology; (4) Digital competence; (5) Learning to learn; (6) Social and civic competences; (7) Sense of initiative and entrepreneurship; (8) Cultural awareness and expression. These competences have to be achieved by the end of compulsory schooling and then further updated and developed in adult life.

Participation in education and training at various life-time stages is the key indicator against which EU measures the progress in one of its strategic priorities of making LLL a reality. Participation in pre-primary or primary of 4 years old, participation in school and higher education (of 5-29 years old) as well as the participation in lifelong learning of adults are the sub-indicators weighted under the composite index on making LLL a reality (2000-2005).

Participation in pre-primary or primary in 4 years old made good progress in EU-27 early childhood education with the increased

62 Data source for EU: EUROSTAT, *European Union Labour Force Survey – Annual results 2007*, Issue number 27/2008
http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-QA-08-027/EN/KS-QA-08-027-EN.PDF

63 European Commission (2007), *The Key Competences for Lifelong Learning – European Reference Framework*, Office for Official Publications of the European Communities, Luxembourg, 30 December 2006/L394.
http://ec.europa.eu/dgs/education_culture/publ/pdf/ll-learning/keycomp_en.pdf

average enrolment rates from 82.8% in 2000 to 86.8% in 2006. Slovenia (from 67.7% to 79.3%) and Romania (from 60.3% to 75.8%) are among the best progressing countries with a rise of participation of around 10%. EC Report suggests that more than 2/3 of the countries had enrolment at 80% or below. Macedonia and Turkey has the lowest enrolment rates in Europe with only 12.4% in 2000 and 15.9% in 2006 (Macedonia) and 7.0% in 2006 (Turkey).

EU enrolment in formal education of people aged 5-29 as percentage of the corresponding population group (ISCED 1-6) increased from 57% in 2000 to 60% in 2005. Participation of primary education stayed over 90% in most EU countries, the secondary enrolment rates were above 85% in all Member States and well above 90% in 16 EU countries, with spectacular increase in tertiary enrolment rate (above 60% in almost half of the Member States).

Macedonia's enrolment in formal education of people aged 5-29 is below 50% (47.9 % in 2000, 48.2% in 2005 and 47.5% in 2006). According to UOE data collection (UNESCO Institute for Statistics), Macedonia has Net Enrolment Rate (NER)[64] for primary education (ISCED level 1) of 92.1% in 2000 and 91.8% in 2005, Net Enrolment Rate for secondary education (ISCED level 2 to 3) is estimated at 80.8% in 2000 while determined at 81.3% in 2005. The Gross Enrolment Ratio (GER)[65] for tertiary education in Macedonia is below 30% (from 22.6% in 2000 increased to 29.8% in 2005).

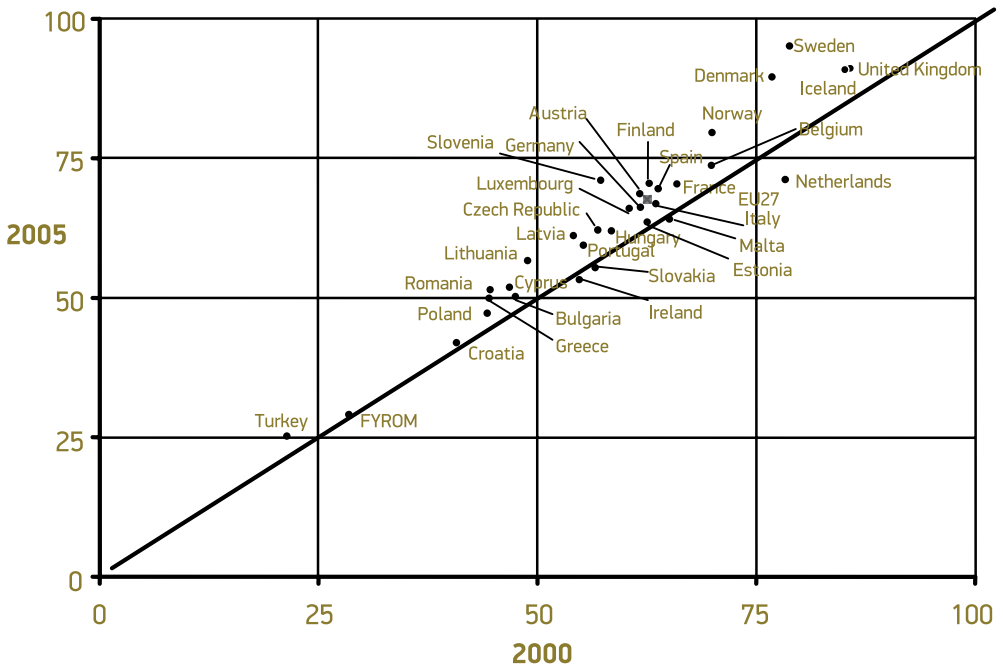
At the EU level, a composite index covering all dimensions of LLL has been constructed with the aim to better capture the participation patterns in formal and non-formal education and training across EU countries. The index shows that "For Slovenia, Finland, France, Austria, Spain, Belgium and the Netherlands, participation is above the European average and LLL is near to become a reality for the majority for their citizens"[66]. It also denotes Slovenia as one of the fastest advancing Member States. The report suggests that LLL is progressing mainly due to the progress in pre-school and school/tertiary participation, although the progress is still too slow to reach the benchmark by 2010. As presented in the chart below, the composite index shows Macedonia and Turkey as less advancing states with lowest index scores.

64 The Net Enrolment Rate (NER) is the number of pupils of the theoretical school age group for a given level of education, expressed as a percentage of the total population in that age group. When the NER is compared with the GER the difference between the two ratios highlights the incidence of under-aged and over aged enrolment. Source: EC Staff Working Document (2008). Progress Towards the Lisbon Objectives in Education and Training., p.202

65 Gross Enrolment Ratio (GER) is the number of pupils enrolled in a given level of education, regardless of age, expressed as percentage of the population in the theoretical age group for the same level of education (IBID) p. 202

66 IBID p.29

Composite index on "making lifelong learning a reality" (2000-2005)



Taken from EC Progress Report 2008, Source: CRELL, 2008

In line with the Council Resolution from 2002 and the Lisbon Integrated Guidelines, 16 European countries have developed national LLL strategies covering all contexts (formal, non-formal and informal) and all levels of education (pre-primary, primary, secondary, tertiary and adult education).

Republic of Macedonia has no separate LLL strategy, although the National Programme for Development of Education 2005-2015 (NPDE, 2006) indicates the promotion of LLL as one of the key areas of interventions. The Programme for Adult Education in a context of lifelong learning was created in 2006 in Macedonia as an integral part of the NPDE. Until then, no separate strategy for adults and adult education was regulated under the existing laws on primary, and secondary education. The priorities of adult education foreseen with the NPDE are to decrease the illiteracy rate among adults (including gender disparities) and increase educational possibilities and options, to expand the basic education of adults, to create possibilities for increasing knowledge, and also to learn skills and values for better quality of life (NPDE, 2006, p. 466).

So far, the NGO sector has been the largest contributor to adult education in the Republic of Macedonia, by providing various forms of activities and training programmes. Apart from the

Chamber of Commerce, the Civil Servant Agency (that outsource training to civil servants) and the Employment Agency (focused on trainings for known and unknown employers; foreign languages, IT, training of disabled persons), Workers' Universities (WU) are the specialized institutions for delivering adult education and training in the country. Other organizations involved in the development and implementation of projects and provision of training for adult education are: UNDP, USAID, Peace Corps, FOSIM, DVV international, the Ministry of Defence, ELTAM, MAKS, the Chamber of craftsmen, the Bureau for Development of Education, the VET centre, local self-government, local institutions, university departments and faculties.

ETF (2006) publication[67] on adult education in South Eastern Europe states that: "Adult and lifelong learning in [Macedonia] is in a "serious crisis". Little priority has been given to its development by the state. [...] There are major systemic gaps. The lack of national qualification framework and system to recognise and validate prior learning and experience, underdeveloped professional guidance and counselling services, insufficient investment and development of teachers and trainers in adult learning, no national data collection system on participation and demand and no sustainable system to analyse skill trends"

The National Employment Strategy, NES (2006) recognizes that one of the main reason for the high youth unemployment rate, age group of 15 to 25 (62.6% according to Eurostat, LFS (Labour Force Survey) in 2005 and the adverse labour market condition is "the mismatch between the labour market needs and the educational and training system"[68]. The literacy rate[69] in Macedonia was 96.38% in 2002. According to the Census data, there are 63,562 (or 3.62%) illiterate people older than 15 in the country, showing slight decrease compared to 5.96% illiterate rate identified with the 1994 Census. The share of women in the illiteracy rate is very high 76.41%. The lowest illiterate rate is seen among Macedonians (2.33%), while the highest is identified among the Roma (20.63%). According to the ETF calculations on the educational attainment level of adults aged 25-64, 41% are with ISCED 0-2 (twice as high as in the 10 new EU Member States), 45% with ISCED 3-4 and 14% with ISCED 5-6.

Adults aged over 15 with incomplete primary education can complete it in mainstream primary schools under the Law on Primary Education that provides for special curriculum and educational programme. The number of primary schools that provide education for adults decreased. A separate Law on Adult Education[70] was enacted by the Parliament in January 2008 that finally provided the basic policy framework for adult education. Adult learning system should be basically re-build from scratch. Apart from the Department for Adult Education within MOES, the Ministry of Labour and Social Politicy, the departments within the units of the local government (the municipalities and the City

67 European Training foundation (2006), *Designing adult learning strategies – The Case of South Eastern Europe*, Turin: ETF, p.44

68 Government of the Republic of Macedonia (2006), *Национална стратегија за вработување – 2010* (National Employment Strategy – 2010), Skopje, p.17 http://www.mtsp.gov.mk/WBStorage/Files/strategija.pdf

69 The literacy rate here is defined as percentage of persons aged 15 and over who can read and write

70 *Закон за образование на возрасни* (Law on Adult Education), Official Gazette No. 7/2008 http://www.pravo.org.mk/download/Zakoni/Obrazovanie_na_vozrasnite_7_15012008.pdf

of Skopje), the Chambers of Employers and the Trade Unions have been pointed out as responsible bodies for adult education. The Law also provides for two new different national bodies to be established: an independent National Centre for Adult Education to take over the competences on adult education and the Council for Adult Education.

The Law provides other novelties related to training provision, certification and quality assurance of adult education. The Ministry is lagging behind the implementation of the legal provision related to the establishment of the new system for adult education. The National Agency for European Education Programmes and Mobility as the responsible agency for managing EC Lifelong Learning Programme (Decision No. 1720/2006/ European Council) and the Youth in Action Programme (Decision No. 1719/2006/European Council) is expected to improve adult education opportunities (formal and non formal) through Grundtvig and Leonardo da Vinci programmes.

3.5.2. Policy Recommendations: Participation of Adults in Lifelong Learning

- The Government is urged to adjust the target of 8-10% participation of adults (aged 25-64) in LLL (determined with NES, 2006) and set up a more realistic one to be reached by 2010;
- The Government should develop a comprehensive LLL strategy and should assign targets for investment in LLL clearly expressed in budgetary terms;
- The Government must ensure that the education reform is in line with and fully reflects the key competences for LLL as set in the EC Reference Framework;
- The Government should make significant efforts to ensure the establishment of a sustainable adult education system that would provide LLL educational opportunities for all, and especially for "at risk" groups;
- The development of a system for validation of non-formal and informal learning must speed up as means of removing barriers to further learning;
- The Government should consider tax relief on educational expenditure for companies and individuals as mechanism that could foster the LLL culture in the country;
- The Government should develop LLL strategy to address training and retraining needs of line ministries;

Chapter 4

LONG WAY TO GO:

General conclusions and recommendations

General conclusions:

- Comparative data displayed in the table below summarizes the progress in EU-27 and in Macedonia towards meeting the EU education benchmarks. Macedonia has alarmingly low pre-school enrolment rate with serious barriers for expanding pre-school coverage; very high early school leaving (ESL) rates with poor vertical and horizontal transition from one to another education subsystem and ill competence-based curricula reform; disturbingly high percentage of low achievers in reading and low percentage of people with upper secondary education; insufficient tertiary education participation rate with low, but increasing number of MST graduates and very low level of participation of adults in continuous education and training. These attributes suggest continuously poor performance of Macedonian education and training system in the process of accession. They are clear signals that the increasing investments in education are not efficient and spent effectively, thus do not bring about the desired effects for improving quality of education and availability of educational opportunities in the context of lifelong learning;

- The objectives and targets set up by the National Programme for Development of Education 2005-2015 (NPDE, 2006) and the National Employment Strategy – 2010 (NPE, 2006) to: (1) decrease ESL to no more than 10 % (2) 100 % child coverage in zero year (3) increase 8-10 % participation of adults aged 25-64 in LLL, and (4) increase secondary education attainment to at least 75% of 22 years olds in the country by 2010 seem to be too ambitious and impossible to achieve by 2010;

- Control over reforms implies having the power to initiate reform, to determine the content and to implement reform to achieve the desired effects. (Ineke Jenniskens, 2001). MOES traditionally lacks most elements for successful reform, including the capacities to manage a decentralized education system in which key decisions should be taken by autonomous local governments. There is frequent mismatch between the education policies and their implementation. Although many processes are in motion, they are inconsistent, brought in hasty and led by the desire “to deliver”. As a result, the interventions are output rather than impact oriented and therefore could bring (if at all) only fragmented results;

Table 6. Comparative overview: progress in EU-27 and in Macedonia towards the benchmarks

EU Benchmark	2010 target for EU	EU-27 progress Based on the arithmetic averages		Republic of Macedonia	
		2000	2007	Performance	Assigned targets
Early school leavers (18-24, %)	No more than 10%	17.6%	14.8 %	32.2%[71] (2002)	10% (by 2010)
Low Achievers in reading (Percentage of pupils with reading literacy proficiency level 1 and lower on the PISA reading scale)	At least 20 % decrease compared to 2000	21.3%	24.1%(2006)	63% (2000)	N/A
Upper secondary attainment (20-24, %)	At least 85%	76.6%	78.1%	65.4%[72] (2002)	75% (by 2010)
MST (per 1000 inhabitants aged 20-29) Math Science and Technology Graduates	Increase of at least 15% (or 1.4 % annual increase over period 2001-2010)	10.2	13.0 (2006)	3.5 (2000) 4.0 (2005) 4.3 (2006)	N/A
Lifelong learning Participation (25-64, %)	At least 12.5%	7.1%	9.7%	1.9% (2003)[73] 2.4% (2005)[74]	8-10% (by 2010)

- There is lack of real cooperative management across line ministries (especially between MOES and the Ministry of Labour and Social Policy and MOES and the Ministry of Information Society etc), which leads to limited or no policy synergies. Very little attention is paid to transparency of policy formulation and decision-making related in the field of education. Consultation with all relevant stakeholders in the education sector (schools, teachers, local governments, employers, syndicate, training providers, NGOs, etc) is chronically lacking;

General recommendations:

- The Government should assure that core country documents for EU accession (National Development Plan, Multi-Annual Operational Programme for component IV/ Human Resource Development 2007-2013/ education part) are entirely in conformity with the EC Education and Training 2010 and Bologna declaration as reference education policy frameworks;

71 Data source: 2002 Census, taken from: EUROSTAT (2007), *Pocketbook on Candidate and Potential Candidate Countries* - 2007 edition http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-PF-08-001/EN/KS-PF-08-001-EN.PDF

72 IBID

73 Source: (ETF, 2003)

74 Source: (ETF, 2005) Kjosev, S., Mojsoska , Blazeski, N., Corcoran , T., Popova, N., Fetsi, A., Nikolovska, M., Nielsen, S. and Helmut, Z. (2005), *Labour Market Review of Former Yugoslav Republic of Macedonia,* European Training Foundation, Turin http://www.ulb.ac.be/unica/docs/prium/labour_market_macedonia.pdf

- Synergy between the education policy and the existing national policies in other sectors needs to be ensured (NES, NAPE), and the coordination between line ministries must be improved;

- National targets and performance indicators of the education reforms should be revisited and further developed, taking account of European references (London Communiqué 2007, E&T 2010, European Employment Strategy; EC Integrated Guidelines for Growth and Jobs (2008-2010). Consequently, monitoring and assessment of progress against EU benchmarks must be also ensured;

- The Government is urged to develop high quality statistical instruments and to ensure that EU accepted methodologies are applied in data processing and analysis; The Government should develop its own efficient information management system for collection of necessary data;

- The reforms must be carried out to ensure high quality education and training systems that are both efficient and equitable. We therefore call the Government to evaluate the efficiency of its policy interventions, especially those that generate heavy investments, but will very unlikely generate the same level of positive results (Computer for every child project, dispersed higher education study programmes for very small number of new entrants, external national student assessments introduced for the purpose of teacher assessment etc);

- The Government should consider investment in areas that will have long-term and sustainable impact on education quality and have high return rates to society. We recommend measures to promote and support inclusive education as to make LLL a reality for Macedonian citizens with more targeted funding, such as investment in pre-primary education and early intervention programmes, supporting socially disadvantaged pupils and pupils with special educational needs; raising the quality of education by enhancing the curricula reform and further development and upgrade of education standards, reforming the pre-service and improving teacher training programmes, developing a national qualifications framework in compliance with EQF that will enable the recognition of prior learning, and flexible pathways to LLL.

- The Government should invest heavily in child-care and in the development of good quality system of pre-school education (especially of children aged 4 and 5). It could be done through improving and expanding the current pre-school facilities and by promoting and supporting different forms of pre-school education across the country (daily and family centres, short forms of pre-school education, non-formal pre-school education etc.). Increased use of pre-schooling is recommended to strengthen the academic performance of students in the long run, especially for children from less advantaged socio-economic backgrounds. It is crucial for further learning – ESL rates, low achievers in reading, participation in LLL etc.;

- The Government must give high priority for sustaining and improving the quality of teacher education, (pre-service and especially in-service teacher training) in light of the LLL agenda. Therefore, greater incentives must be ensured to support teachers in their professional and carrier development through formal, informal and non-formal learning (European Council, 2007b and European Commission, 2007a), in order for them to teach more effectively and be able to respond to the diversity in the classroom as to approach the individual learning needs;

- The Government should redraw the decision for the external student assessment envisaged under the current laws on primary and secondary education. The assessment results can neither be used as the only criterion for teacher assessment, nor can lead toward better performance of students. The external student assessment can not positively influence the ESL rate, percentage of low achievers in reading, upper secondary attainment, LLL.

Chapter 5

LOOKING AHEAD

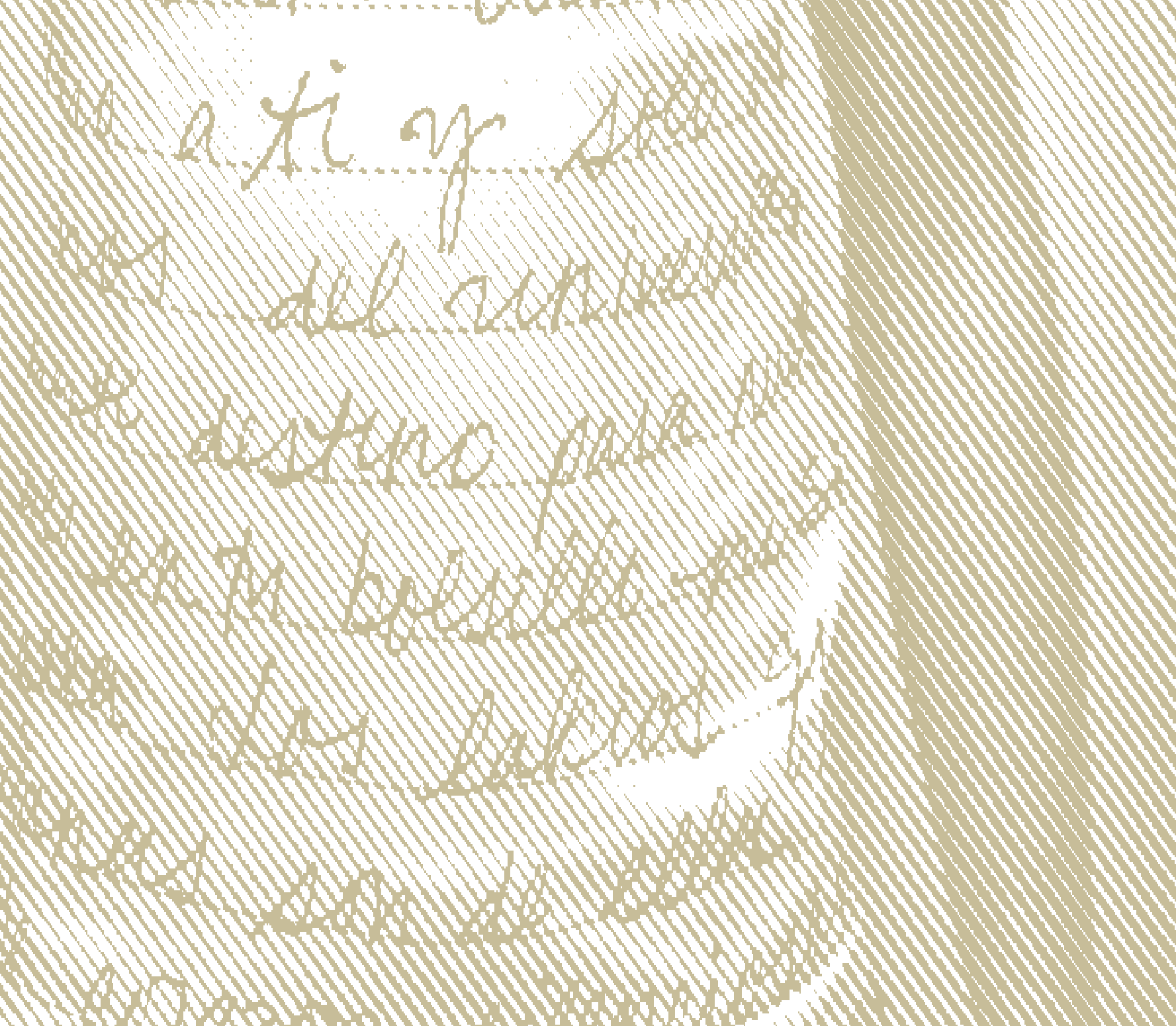
Every serious long-term national strategy to increase economic competitiveness, prosperity and social cohesion is built on a foundation of education and training. Macedonia is at a turning point. Macedonia needs faster economic growth, which is impossible to achieve without sufficient investments in education. On the other side, the crisis in the production, pursuit, exchange and use of knowledge is evident in the country.

Knowledge society is not a dream or a fantasy, but an innovative society that has room for the aspirations of all of its citizens, and has the tools and means for enhancing their continuous personal development at all stages. Macedonian Government should face reality. "A cradle to grave" learning culture cannot be developed and nurtured in society through costly campaigns with bizarre and confusing messages. Much more concentrated efforts, evidence-based policy and decision-making through wider consultation with all stakeholders are needed instead.

The challenges in national education reform are not only huge, but they are also a necessity in light of Macedonia's accession to the EU. Educational inequalities persist in Macedonia and have devastating effects, especially on the lives of the most disadvantaged. The low levels of initial education and new forms of illiteracy, high unemployment rate and limited opportunities for learning throughout life decreases their chances to acquire competences needed for the labour market and for being active citizens.

Development of education and training system is a paramount for economic growth, more jobs and knowledge-based economy with well functioning knowledge triangle (education-research-innovation) as key means to creating the demand for and capacity to sustain social change. Therefore, education should become one of the key priorities of the Government as the essential driving force for other sector reforms and for the transformation of Macedonian society in the years ahead.

We call the Government of the Republic of Macedonia and the Ministry of Education and Science to endorse fully and clearly the Education and Training 2010 Work Programme, the benchmarks and indicators set out at the EU level as a way for establishing a solid base against which the progress of strategic priorities in education in the country will be monitored and assessed in the years to come. We invite the Government to endorse and implement the recommendations set out in this document.



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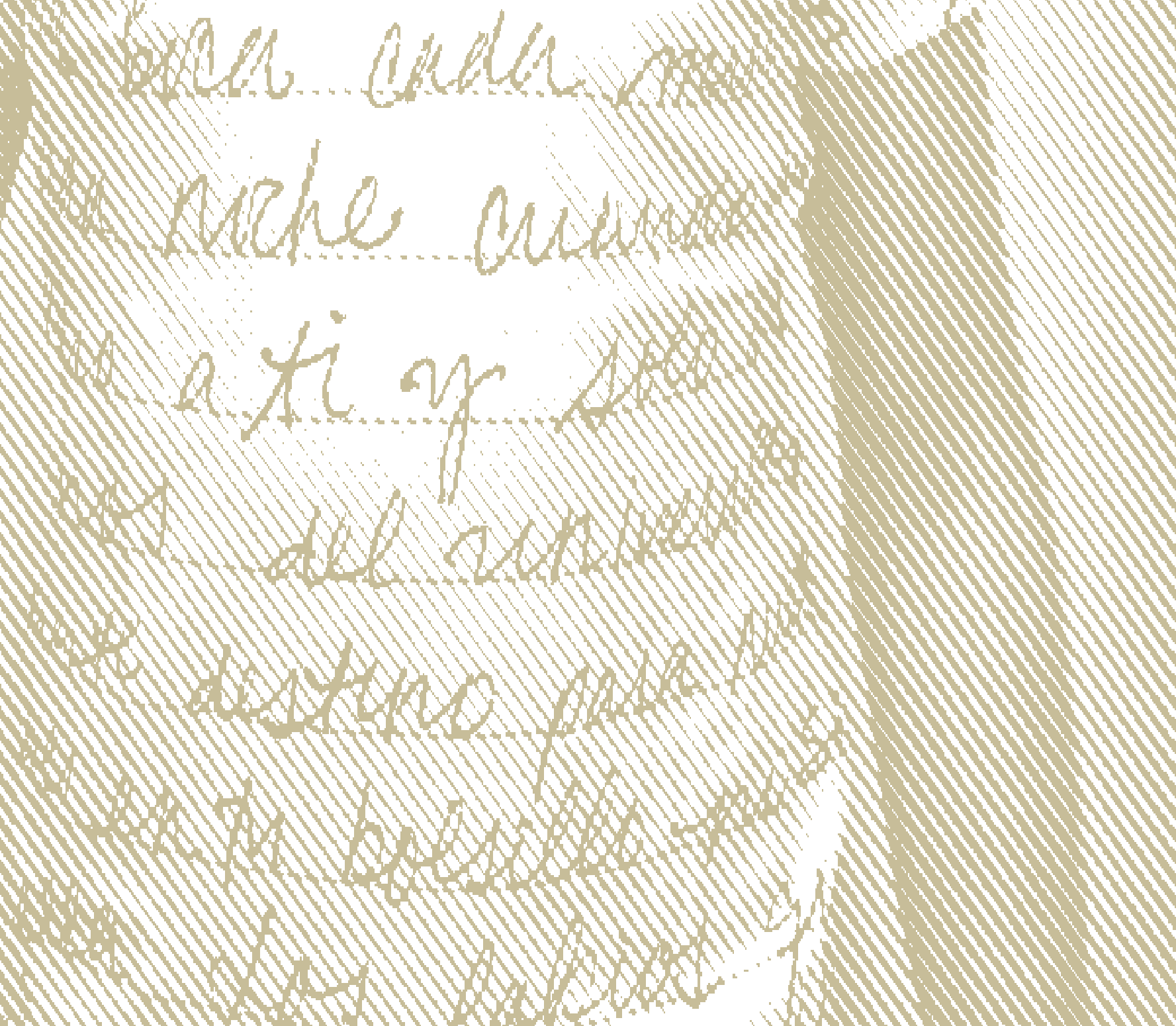

ABOUT THE FOUNDATION OPEN SOCIETY INSTITUTE–MACEDONIA

The Foundation Open Society Institute - Macedonia (FOSIM) is a nongovernmental organization committed to enhancing Macedonia's prospects for EU accession by fostering internal integration as a prerequisite.

Dedicated to the promotion of and support for an open society across the program areas of education, law, public administration and local self-government, civil society, public health, information, media and economic reform, FOSIM implements a range of initiatives varying from capacity-building to policy and social advocacy projects. Responding to different needs of various target groups, especially youth, Roma and other socially marginalized groups, FOSIM cooperates with other NGOs, international institutions and donors in undertaking actions that foster sustained democracy. Accelerating Macedonia's EU accession; integration of Roma and socially marginalized groups; and decreasing the gap between youth and open society values are FOSIM's main strategic priorities for the period 2009-2011.

From its establishment in 1992, FOSIM has given high priority to the support for education and is exploring ways to increase its impact in this area. FOSIM Education Program's mission is to accelerate the process of Macedonian education's integration in the European education area by leveraging educational needs of children, youth, schools, teachers, parents, and disadvantaged groups.

The core purpose of FOSIM' Education program is to: (1) provide high-quality education programs which promote open and equal access for all, and especially for disadvantaged and marginalized groups; (2) offer continuous development of knowledge, competences and attitudes to teachers, children and youth required for establishing and sustaining democratic and open societies in the 21st century; and (3) influence national education policies in respect to the goals set in the EU overarching education policy framework.

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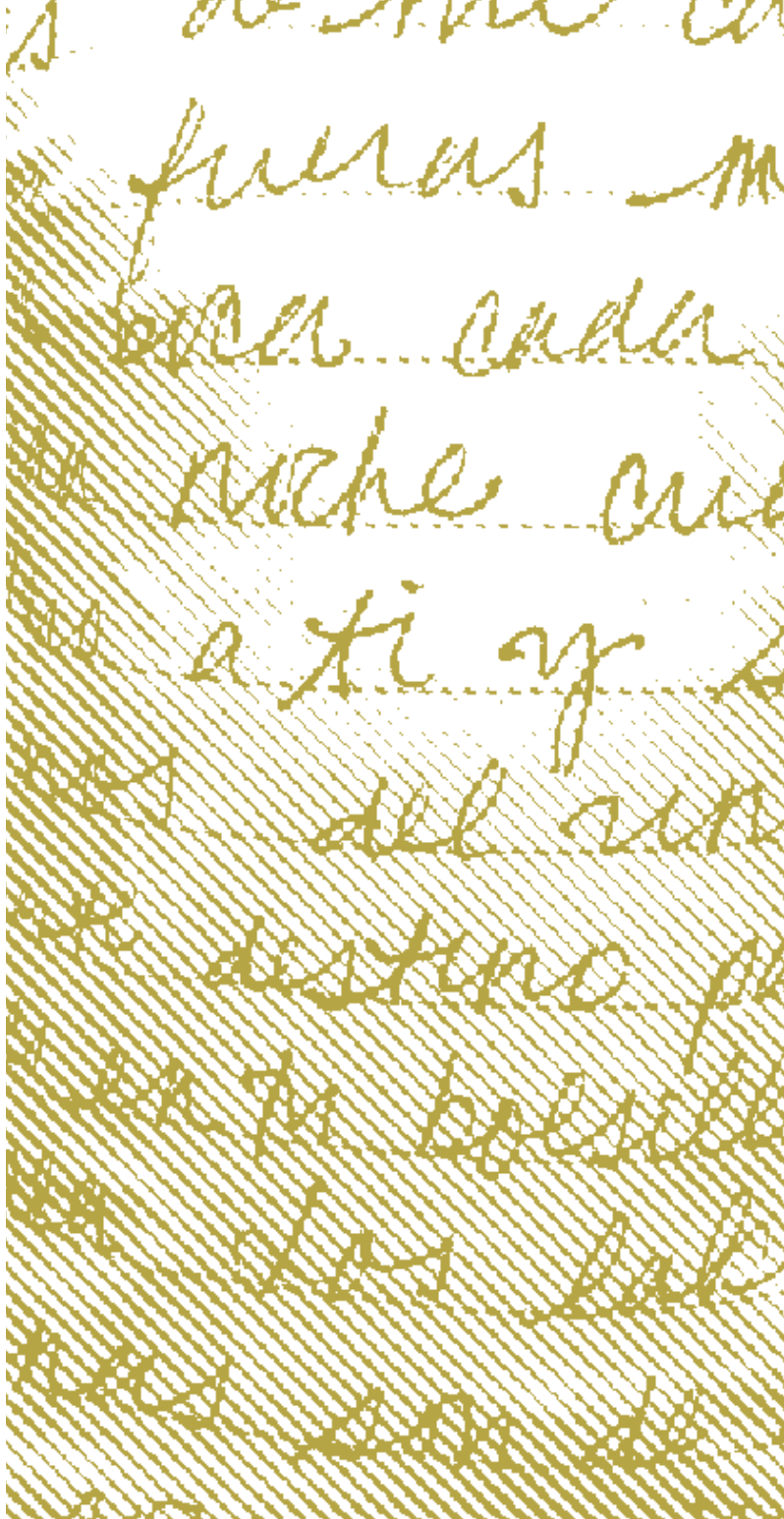

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