

RoadMap for the Development of Education in Kazakhstan

Higher Education Roadmap Recommendations

November 2013

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Foreword

This document presents a set of recommendations for the Roadmap Project of the Republic of Kazakhstan developed by the Higher Education Project Team (Mary Canning, Joni Finney, Dennis Jones and Aims McGuinness). It is based on the July 2013 report *Development of Strategic Directions for Education Reforms in Kazakhstan for 2015-2020*.and on the reports of the Steering Committee.

Introduction

Sector Goal

The Kazakh Government has declared that education reform is its highest priority because education, at all levels, is a major contributor to social cohesion, economic growth and human capital for innovation.

Roadmap Project Objective

Using the findings of the 2013 Roadmap diagnostic reports, the programme identifies key actions to effect improvement of the education system to: (i) promote equal access and enhance social cohesion by reducing the rural/urban divide through the provision of education to all Kazakh citizens regardless of socioeconomic background; (ii) modernise education to equip the next generation with the knowledge, understanding and skills appropriate to a changing labour market and to citizenship in an evolving society; and (iii) sustain a globally competitive research base. The objectives of this programme will be achieved through: (a) the development of improved education policies and governance; (b) the reorganization of existing education financing allocation mechanisms which are currently regressive at all levels of the system; and (c) the investment of additional resources in the key strategic areas identified in the Roadmap programme and detailed in this implementation document. This Roadmap provides support to the achievement of the national Vision Statement for the development of education in Kazakhstan: “By 2020, Kazakhstan will have become an educated country with a smart economy and a highly qualified labour force” (The State Programme of Education Development in the Republic of Kazakhstan for 2011–2020).

The Roadmap Project will have four Project Components (i) Pre-School; (ii) Primary and Secondary Modernisation; (iii) TVE Reform; (iv) Higher Education Modernisation. This document sets out the strategic objectives for Higher Education Modernisation component drawn from the executive summary of the diagnostics report. The key priorities and the strategic outcomes/objectives, performance indicators and outputs/activities are also suggested.

The teams have also identified several issues which are common to all sub sectors. These may be summarised as the need to:

- (i) build analytical capabilities, data collection and implementation capacity to manage the education reform at national, local and institutional levels;
- (ii) improve coordination among different agencies working within different sub sectors of education and between sectors;

- (iii) build on and further develop existing sectoral initiatives such as the NIS/NU, the standards of educational performance and the National Framework of Qualifications as an enabler of transfer and progression pathways;
- (iv) prioritise important initiatives without which education transformation cannot succeed (e.g. the improvement of pre-service and in-service teacher education).

In addition, and as part of an implementation strategy, this document suggests that it may be appropriate to focus initially on the creation of model demonstration units or clusters of institutions in one or two regions which will pilot and test the proposed reforms.

Part One: Summary of Recommendations

This document sets out the strategic objectives for the Higher Education Modernisation component based on the findings of the Diagnostic report. Three Strategic Reform Objectives are proposed: (i) reform Existing Financial Allocation Mechanisms in Order to provide affordable access to students in all parts of the country and develop a more Sustainable and Competitive Higher Education System; (ii) redesign Kazakhstan's national higher education leadership, coordination, and oversight capacity to reflect international best practice for globally competitive higher education systems; and (iii) build capacity in Non-Research Higher Education Institutions and develop a leadership programme for Higher Education Leadership.

Part One contains a short discussion of each Strategic Objective based on the findings of the Diagnostic report with a matrix for each objective containing key outcomes and outputs. A proposed implementation strategy is also recommended. Part Two contains the detailed recommended action plans.

Strategic Objective 1. Reform Existing Financial Allocation Mechanisms in Order to provide affordable access to students in all parts of the country and develop a more Sustainable and Competitive Higher Education System.

The Diagnostic Report focuses on financing policy as a major tool by which government influences the achievement of desired outcomes in higher education and research. It concludes that in Kazakhstan:

- (i) the overall level of funding is too low to support the national aspirations for higher education outputs and that additional investments in higher education will be required;
- (ii) the current method of allocating funds for instructional purposes through state grants (essentially a voucher) to high achieving students is not well aligned with the goal of increasing participation in postsecondary education in all parts of the country. Existing finance mechanisms ensure neither the creation and maintenance of necessary institutional capacity in underserved oblasts nor the affordability of education for the large numbers of students who must be educated for goals to be met but who do not receive state grants (approximately 75% of current enrollees);
- (iii) that it is only in the funding of research/innovation activities that goals and financing methodology are well aligned. In this area, the national government supports both the development of research infrastructure at universities and the conduct of research activities in fields considered national priorities.

Recommendation 1: (i) increase the level of finance for higher education; and (ii) design a more equitable allocation system for funding students.

Strategic Objective 2: Redesign (i) Kazakhstan's national higher education leadership, coordination, and oversight capacity to reflect international best practice for a globally competitive higher education systems and (ii) the governance of Kazakhstan national and state universities to establish by 2020 a network of autonomous, high quality, national and globally competitive institutions.

The Diagnostic Report cited international experience which shows that the most successful and responsive universities have autonomy in their decisions about academic course content, staff appointments and institutional financing. At the same time, academic freedom must be balanced with the need to be accountable to taxpayers. The report recognises that Kazakhstan has taken important steps both to increase institutional autonomy as well as to reform the role of the Ministry of Education and Science and national-level entities. However, there continue to be legal constraints on autonomy of public universities in Kazakhstan which do not apply to private HEIs or to NU. There are regulatory constraints related to the capacity of institutions to assume increased responsibility for curriculum and academic programme development. Rigid budgetary controls based on historic practices limit the flexibility of university managers.

Recommendation 2: (i) strengthen the leadership capacity of the Ministry of Education and Science to design and implement a strategy for reform and (ii) prepare or amend the required legislation to implement a new corporate governance model for all public institutions.

Strategic Objective 3: Advance Reform in Kazakhstan Higher Education by Building the Capacity of Non-Research Tertiary Institutions And Launching the Kazakhstan Higher Education Leadership Fellows Program.

The Diagnostic Report recognizes that Kazakhstan has made major strides in developing its system of higher education and in increasing the research and innovation capacity of the country's leading universities. International partnerships have been created to collaborate on research and innovation, new graduate education programs have been established and state funding for research universities has been instituted. In addition, high performing students seeking graduate degrees may qualify for the Bolashak scholarship to study overseas with full government support, provided they return to Kazakhstan to work for at least five years after graduation. While there continue to be concerns related to the development of research capacity in Kazakhstan, particularly regarding the bifurcation of the research enterprise between Research Institutes and Universities conducting research, Kazakhstan's effort to develop its research universities is impressive.

In contrast, there has not been a parallel effort to invest in and develop the nation's non-research tertiary institutions ultimately responsible for the education of most of Kazakhstan's citizens, and essential to address the regional equity issues and build greater social cohesion. Also, unless serious attention is paid to providing tertiary education to more Kazakhs citizens, it is unlikely that Kazakhstan will reach global standards of competitiveness in higher education over the coming decades. Nations with the most competitive research sectors have also developed their non-research tertiary

institutions in order to increase human capital for a more competitive economy and cohesive society.

Recommendation 3: Prioritise investment in the human capital at the Ministry and non-research institutions of higher education.

Implementation Objective: Pilot education reform at regional and institutional level through an Innovation Fund with a focus on the creation of regional clusters of institutions.

A competitive Innovation Fund is a promising instrument for initiating reform at institutional and local level because it provides incentives for change and serves as an entry point in demonstrating the benefits of modernisation to other stakeholders. Moreover, the systemic benefits accruing from the initial phases of fund preparation process are often substantial. Even if unsuccessful, these bid preparation activities encourage an institutional culture that is more open to change and is more regionally focused. Successful institutions would act as focal points for qualitative change for Kazakhstan's education system and would link together at least one Pedagogical Institution and one TVE [Kassipkor] centre in an existing Higher Education Institution. All three participating institutions would demonstrate the capacity for modernisation and for the development of innovative programmes and activities which incorporate efficiency measures, governance reform and capacity building activities. All institutions would also demonstrate willingness to work together to address the education needs of regional populations paying particular attention to the teacher education requirements set out in the Roadmap documentation. Where appropriate the development of one or more Regional Institutional Clusters could also be one of the goals of the Innovation Fund as set out in the institutional selection criteria. Regional Clusters would have as their objectives a focus on the cross cutting sector issues identified in all three Roadmap reports.

Recommendation 4: in order to implement sector reforms, design an Innovation Fund with a focus on the creation of regional clusters of institutions as an essential part of the Roadmap implementation strategy

Road Map Matrices

STRATEGIC OBJECTIVE 1 (i) : Reform Existing Financial Allocation Mechanisms in Order to provide affordable access to students in all parts of the country and develop a more Sustainable and Competitive Higher Education System						
Strategic objective/outcome 1: Higher Education In Kazakhstan is better resourced in a way that benefits all students and meets the requirements of a competitive economy						
Outcome indicators:						
<p>Indicator 1 Increased amount of GDP for higher education per capita in line with benchmarked countries.</p> <p>Indicator 2 Increased education attainment levels of population aged 25-34 and 25-64.</p> <p>Indicator 3 Improved equity of access and attainment for students in rural oblasts and from poor families.</p>						
Output	Output indicators	Outreach			Time framework	Budget
		Main beneficiaries	Delivery agents/ National stakeholders	International stakeholders		
New funding allocation mechanism adopted and implemented at the national level.	<p>Increased numbers of graduates, especially among underrepresented groups and in high priority fields.</p> <p>Fee levels benchmarked against lower incomes (e.g. first and second quintile households or</p>	<p>Students/Families</p> <p>Less well off and Rural Populations</p>	MOES		<p>Timelines for Individual Actions included in Part Two: Detailed Action Plans.</p>	<p>Insufficient Resources Available in National Budget</p> <p>Insufficient Utilisation and Innovation Capacity in</p>

<p>at 25th percentile)</p> <p>A sustainable array of diverse institutions located in geographically appropriate places.</p> <p>Further Development of Student Aid instrument.</p> <p>Creation of fair and transparent HEI admissions system.</p> <p>Development of one internationally competitive research universities in addition to Nazarbayev University)</p>			2019		HEIs
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STRATEGIC PRIORITY № 2 Improve (i) national higher education leadership, coordination, and oversight capacity; (ii) improve governance at national and institutional level							
Outcome: 2 (a) Kazakhstan has established the national leadership, coordinating and oversight capacity to steer and hold accountable a highly decentralized network of autonomous higher education institutions for achieving the country's 2050 goals;							
Outcome Indicators							
Indicator 1. The Ministry of Education has strengthened capacity to implement reform .							
Indicator 2 New legislation has been developed to strengthen HEI autonomy and to ensure accountability;							
Indicator 3 By 2020, all national and state universities have been transferred to a new legal status comparable to that of Nazarbayev University by 2020							
Indicator 4. All national and state universities have the capacity for effective governance and institutional leadership including a board of trustees, a president appointed by and serving at the pleasure of the board, and an internal governance and management structure reflecting global best practice							
Output	Output indicators	Outreach			Time framework	Budget	Risks
		Main beneficiaries	Delivery agents/ National stakeholders	International stakeholders			
Establishment of the national leadership, coordinating and oversight capacity to steer and hold accountable a highly decentralized network of autonomous higher education institutions for achieving	An entity responsible for: (i) Providing national strategic leadership, coordination, and oversight for the nation's higher education system; (ii) a new law on universities designed and implemented; (iii) transition of		MOES Ministry of Justice		Completion of Design/Implementation Team report and recommendations to Minister of Education and Science by September	Delay in organizing Design/Innovation team makes meeting the deadline of September 30, 2014 impracticable;	

Kazakhstan's 2050 goals	<p>universities to new legal status; (iv) implementation of new finance policies (Strategic Priority #1); (v) capacity building at the national and institutional levels (Strategic Priority #3):</p>			30, 2014		<p>Delays in completion of Design/Innovation Team report Need to obtain changes in laws in order to establish new entity.</p>
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Outcome 2 (b) A diversified system of national and state universities organized as autonomous not-for-profit educational organizations with substantial academic, financial, staffing, and management autonomy within the framework of national higher education strategy and oversight linked to Kazakhstan's 2050 goals.

Output/Activity	Output indicators	Outreach			Time framework	Budget	Risks
		Main beneficiaries	Delivery agents/ National stakeholders	International stakeholders			
All national and state universities have the capacity for effective governance and institutional leadership including a board of trustees, a president appointed by and serving at the pleasure of the board, and an internal governance and management structure reflecting global best practice.	Where necessary, new legislation replaces the existing 16 codes and 48 laws Simplification of the existing legal framework that governs Universities. National and state universities making the transition to the new legal status. Year-by- year increase in the percentage of national and state universities making the transition to the new legal status Year-by-increase in the number of regions	HEIs Staff and Students Kazakhstan society and economy	MOES Institutional Boards of Governors		2015-2016		Capacity to draft new law depends on the organization of a new national-level higher education leadership/coordination/implementation entity (Strategic Priority # 2 (a)) Law will not be approved or will be applicable to only a limited number of universities Boards of trustees, presidents, and institutional academic and finance lack capacity to assume responsibility entailed in increased autonomy Lack of capacity at the MOES or other entity to develop process

	<p>in which all state universities within the region have been transferred to the new legal status</p> <p>Year-by-year increase in the percentage of universities within each category of mission (research universities, regional universities, pedagogical universities, and universities with specialized missions) making transition to the new legal status.</p> <p>Year-by-year increase in the percentage of universities determined through an independent assessment to have the capacity for assuming full governance authority and responsibility</p>			<p>Lack of capacity at the MOES or other entity to develop criteria and organize the steps and capacity building to guide universities to new status</p> <p>Universities selected for transition lack the capacity to organize boards of trustees, appoint presidenvernance and management structures</p> <p>Lack of capacity and incentives for strategic planning and for collaboration across general secondary, TVE and higher education</p> <p>Deeply imbedded institutional cultures block the needed internal institutional reforms despite significant investments in capacity building and professional development</p> <p>Once a university has</p>
		By 2020		

moved to new legal status, political pressures will limit the capacity of the MOES to reassert previous controls.

State leverage for change will be dependent on implementation of new finance policies [see Strategic Priority #1 on Finance] and accreditation/quality assurance processes

Strategic Objective 3: Advance Reform in Kazakhstan Higher Education by Building the Capacity of Non-Research Tertiary Institutions And Launching the Kazakhstan Higher Education Leadership Fellows Program.								
Outcome 1: Leadership and Management Capacity Developed in Key Non-Research HEIs								
Outcome indicators								
Indicator 1. Capacity Building Strategy for Higher Education sector developed Indicator 2 Strategic plan for Higher Education Leadership Programme designed and operationalised Indicator 3 First Cohort of Institutional Leaders developed. Indicator 4 Leadership Programme evaluated and assessment built into future capacity building strategies.								
Output	Output indicators	Outreach	Main beneficiaries	Delivery agents/ National stakeholders	International stakeholders	Time framework	Budget	Risks
A national office for implementation of the Roadmap Project guided by an international steering committee appointed by the Minister of Education (<i>link to Strategic Objective 2.1 national leadership objective</i>)	<p>Strategic plan for capacity building as part of implementation of the Roadmap project developed and agreed.</p> <p>Criteria for Selection of International Steering Committee agreed.</p> <p>International Steering Committee (3-5 internationally recognized experts in Higher Education Policy Development.</p> <p>Recruitment Criteria for Director and staff of National Capacity</p>	<p>Senior Staff in MOES and Selected Non-Research HEIs</p> <p>Successful implementation of National Strategy for Higher Education will benefit all stakeholders.</p>	MOES	International Expertise where required.	International Advisory Committee	March 2014	April 2014	Capacity in MOES to develop leadership programme; Availability of appropriate international expertise in a timely manner;

<p>Building programme developed.</p> <p>Director and staff identified and recruited to implement the Roadmap for Higher Education Project 2015-2020 (<i>link to Strategic Priorities 1 and 2 and to Implementation Strategy</i>).</p> <p>Process to identify the readiness and willingness of regional clusters to implement the Roadmap Project developed. (<i>link to all Strategic Priorities</i>);</p> <p>Participation criteria for the first Higher Education Leadership Fellows Program developed and agreed with MOES;</p> <p>Process to identify first cohort of MOES and HEI staff to be trained agreed and developed;</p> <p>First cohort of higher education leaders who are</p>			<p>Sept 2014</p> <p>May 2014</p> <p>September 2014</p>	<p>Availability of suitable candidates (Director and staff) to develop capacity building programme.</p> <p>Criteria and process to identify institutions and regions are complicated and slow to develop and implement</p>
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<p>engaged in learning and implementing change in their institutions and with their regional partners is developed.</p> <p>An evaluation system of the Leadership Programme designed and administered.</p> <p>Evaluation of first cohort of Institutional Leaders trained feeds into future rounds of Leadership Programme</p>				<p>2015</p> <p>2016</p> <p>2017-2020</p>		
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Strategic Objective 4: Pilot education reform at regional and institutional level through an Innovation Fund with a focus on the creation of regional clusters of institutions.							
Outcome 1: Innovation Fund is disbursing in at least two regions .							
Outcome indicators:							
Indicator 1: 2 regional clusters of institutions (i.e. HEI + Pedagogical Institute + TVE [Kassipkor] demonstrating improvements in quality of teaching and learning and of governance;							
Indicator 2: Lessons of experience summarized and positive results prepared for scaling up.							
Output	Output indicators	Outreach	Delivery agents/ National stakeholders	International stakeholders	Time framework	Budget	Risks
Fund designed and disbursing to 2 clusters of institutions at regional level	<ul style="list-style-type: none"> (i) Design of criteria for the selection of participating institutions to include prequalification criteria. (ii) Decision on how to resource the proposed Innovation Fund. (budgetary or extra budgetary sources (iii) Appointment of Independent Review Panel (with international members), (iv) Operational Manual for the Innovation Fund. (v) Fund successfully disbursed and positive and negative lessons summarized 	<ul style="list-style-type: none"> HEIs Pedagogical Institutes TVE Colleges 	MOES		<ul style="list-style-type: none"> (i) February 2014 (ii) February 2014 (iii) March 2014 (iv) April 2014 (v) 2016 		<p>Reform fatigue because of many change initiatives</p> <p>Scaling up to system level</p>

Part Two: Detailed Action Plans

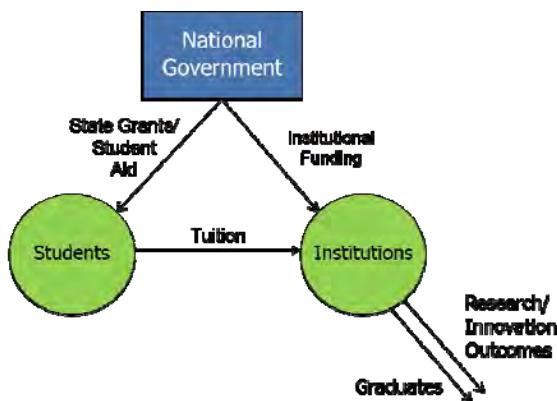
Strategic Priority 1: Reform Existing Financial Allocation Mechanisms in Order to provide affordable access to students in all parts of the country and develop a more Sustainable and Competitive Higher Education System

As indicated in the Diagnostic Report, changes in levels of funding for higher education and in the ways in which these funds are distributed emerged as a priority for attention during the 2015 – 2020 time period. Financing policy is the major tool by which government influences the production of desired outcomes. If desired outcomes are to be achieved it is important that fiscal policy be purposefully fashioned to support and promote achievement of priority goals – the development of an educated citizenry, a skilled workforce, and innovation that leads to creation of a competitive, twenty-first century economy in the country.

During the diagnostic review, it was determined that the current approach to financing higher education is deficient in several ways. First, the overall level of funding is too low to support the national aspirations for higher education outputs; additional investments in higher education will be required. Second, the method of allocating funds for instructional purposes – through state grants to high achieving students – is not well aligned with the goal of increasing postsecondary education among the populations in all parts of the country; the finance mechanisms ensure neither the creation and maintenance of necessary institutional capacity in necessary geographic areas nor the affordability of education for the large numbers of students who must be educated for goals to be met but who do not receive state grants (approximately 75% of current enrollees). It is only in the funding of research/innovation activities where goals and financing methodology are well aligned. In this arena, the national government supports both the development of research infrastructure at universities and the conduct of research activities in fields considered national priorities. A similar arrangement is needed in support of the education attainment goals.

A framework for financing higher education in Kazakhstan is presented in the following diagram.

Figure 1. The Components of Finance Policy



The decisions to be made within the context of this framework are:

1. The levels and methods for funding institutions in order to create and sustain the institutional capacity necessary to
 - Educate students in the numbers and geographic locations necessary to meet the attainment goals set for the country
 - Provide affordable education to large numbers of students
 - Support the research/innovation activities required to foster a competitive, twenty-first century economy

It should be noted that decisions about the minimum array (types and locations) of institutions required to meet these outcomes objectives are necessary precursors to effective funding decisions.

2. The levels and methods of funding students in order to:
 - Encourage students to strive for excellence in secondary school
 - Maintain affordability for students
 - Ensure that students can attend and complete college regardless of place of residence or economic circumstance

Steps recommended for action in the 2015-2020 time frame are presented in the matrix in Part One of this report.

Action Steps: The Roadmap

1. Participate in a Higher Education Finance Workshop conducted by international experts (see Annex One for a description of such a workshop).
 - Participants: 10-15 high ranking officials from Ministries of Education, Finance, Planning, Economic Development, Labor.
 - Faculty: 3-4 International experts – policy analysts/scholars and government level leaders who have designed and implemented new funding models.
 - Objective: Agree on the general design of a new funding model for higher education in Kazakhstan - the components and general outlines, with a timeline for filling in the details.

Timeline: By the end of February 2014.

- Location: Preferably Europe but, as a minimum, away from Astana
2. Develop the details of the institutional funding component of the financing model. one approach would require the following steps:
 - Leadership of MOES develop the details of the institutional funding model consistent with the parameters identified in the course of the Finance Workshop. These details should specify:

- The specific institutions to receive funds under the provisions of this allocation mechanism
 - the basis for allocating funds (e.g., number of students, number of students not having state grants, etc.)
 - the inclusion of research as well as instruction
 - the desired level of funding to be allocated through this mechanism (recognizing that this number may not be attainable in the first instance).
- Review this proposal with international experts (workshop faculty plus others identified by this faculty). Revise the proposal in accordance with comments received (but only to the extent deemed appropriate by MOES leadership).
- Work with leadership of the other Ministries (and others at the national level) to refine and gain consensus around the institutional component of the model.

The timeline for this should be at the point necessary for incorporation into the 2016 budget.

3. Implement the institutional component of the revised financing model during the 2016 fiscal year.
 - Submit a budget during the regular budget cycle that includes provisions for institutional funding for both instruction and research.
 - Allocate funds provided for these purposes to institutions in accordance with the distribution criteria established during the design phase.
 - Develop and implement a means of (post facto) monitoring the use of the funds so allocated. Similarly compile data that allows assessment of whether or not these funds are having the desired effect.
 - building instruction and research capacity
 - removing geographic and economic barriers to enrollment and completion
 - increasing research/innovation in areas defined as being national priorities
4. Conduct a design workshop for the student component of a new funding model.

In order to ensure affordability of a college education for the large proportion of students who pay fees, it is critical that there be a clear, national approach for ensuring this necessary condition. In all likelihood this will require the creation of a need-based student financial aid program. It may also require rethinking the criteria applied to the state grant program.

Since student financial aid is a specialized area of higher education finance, it is recommended that a team of international experts with deep knowledge of

alternative approaches to the issue of maintaining affordability be convened to meet with the leadership of MOES (and perhaps the Ministry of Finance). The purposes of this meeting should be to:

- become acquainted with different mechanisms
- Understand the infrastructure (especially data requirements) required to support each of these different approaches.
- Reach agreement on the general approach to be pursued.
- Develop a timeline for design and implementation.

As before, this meeting should be held outside Astana, preferably outside the country.

Given the workload associated with designing and implementing the institutional component of the funding model, it is probably not feasible to engage in this conversation until late 2015/early 2016.

5. Design the student component of the financing model.

The process should be generally the same as that put in place for the institutional component – MOES develops the specifics in accordance with the general outline resulting from the workshop, review and refine the proposed approach with the assistance of selected international experts, and settle on a final design after consultation with appropriate parties in the national government.

This work should ideally be completed no later than mid-2016.

6. Implement the student component of the financing model.

The mechanics associated with implementing the student component of the financing model will almost inevitably be more complicated than those associated with the institutional model. This will be true unless the approach selected for the student component consists solely of modifications to the state grant program, an unlikely scenario.

A more likely scenario would be:

- Continuation of the state grant program tied to the (revised) UNT but with some modifications. These modifications could take several forms, for example:
 - Adding a need component so that high performers with little economic need got a somewhat smaller grant
 - Putting the awards on a sliding scale so that only the highest performers get the full award, with others getting partial awards
- Addition of a purely need-based component for students who don't get a state grant and don't have the economic means to attend college without some form of financial assistance.

The implementation process will likely require:

- The creation and maintenance of a student unit record system, if not for all students graduating from secondary education, for at least all those who are applying for financial assistance; the nature of the specific data items to be compiled will depend on the specific distribution algorithms decided upon.
- Determination of how to handle circumstances in which funding needs are not fully met – are allocations to all eligible students reduced proportionally, are the most needy students held harmless, etc.
- Setting up the machinery whereby funds are distributed to institutions on behalf of students.
- Determining the conditions that students must meet in order to continue receiving grants.
- Specifying schedules by which certain events must occur – applications must be received (or when information on which allocations will be based must be compiled), notifications of awards distributed, etc.

It is probably not reasonable to expect implementation to occur prior to fall 2018.

7. Connecting all the pieces

By 2019, the individual elements of the overall financing scheme should have been designed and implemented. The remaining task is to make necessary adjustments to ensure that the pieces are working in harmony in support of the national goals. To this end it will be necessary to:

- Compile the policies, including those regarding tuition, and review them for coherence.
- Identify any unintended consequences associated with implementation of the various components of the overall financing model.
- Determine any necessary changes.

These are activities that can be carried out by leadership and staff of MOES, in consultation with the international experts involved in the design stages if such assistance is deemed necessary. This line of work should culminate in the development and implementation of the 2020 budget.

8. Create a new legal structure for institutions of higher education on the model of Nazarbayev University. By 2019, all state-owned and joint stock institutions of higher education should be transferred to this new corporate governing structure.

This is a longer-term activity, one requiring changes in statute. The topic will be addressed more fully in the following section on governance (Strategic Objective 2). Two critical elements of this new corporate structure as it impacts the approach to financing are: (1) to establish entities that own and manage their assets and not controlled by the Law on State Property; and (2) to create state owned institutions as non-profit entities – a class of organization not currently recognized in Kazakhstan – for the purposes of:

- making them exempt from taxation
- creating a vehicle by which individuals and businesses can receive tax deductions for gifts to these educational institutions.

The objective should be to have this new legal structure in place by 2019.

Strategic Priority Number 2 (i): Redesign Kazakhstan's national higher education leadership, coordination, and oversight capacity to reflect international best practice for globally competitive higher education systems

Action Steps: the Roadmap	Timeline	Risks
<p>Establish a design/innovation team reporting directly to the Minister of Education and Science to be responsible for completing a report and recommendations by September 2014 on redesign of the MOES role and responsibilities related to higher education</p> <p>Include in design/innovation team membership international experts with significant experience related to national/state entities for coordinating/steering higher education (UK, US and Ireland)</p> <p>Charge design/innovation team with:</p> <p style="margin-left: 20px;">Design of a new higher education leadership/coordinating entity, including functions and governance (either as an entity within the Ministry or as a buffer body independent of, but within the policy framework of, the MOES)</p> <p style="margin-left: 20px;">Clarification of the role of the MOES and the new entity, including identification of MOES functions to be transferred to the new higher education entity and those to be retained in the MOES</p> <p style="margin-left: 20px;">An assessment of the capacity of existing MOES staff to assume new roles and identification of needs for additional professional development (see Capacity Building Priority)</p> <p style="margin-left: 20px;">Specification of additional functions and staff capacities to be assigned to the higher education entity, including, but not limited to:</p> <ul style="list-style-type: none"> - Development of a data/information policy analytic capacity, and the capacity at the national and institutional levels for (1) monitoring/reporting on progress toward national goals, (2) holding institutions accountable for outcomes/performance; (3) ensure fiscal integrity in the system; and (4) developing capacity for use of 	September 30, 2014	Delay in organizing Design/Innovation team makes meeting the deadline of September 30, 2014 impracticable

<p>data/information in institutional management</p> <ul style="list-style-type: none"> - Development of new finance policy/allocation methodology (Strategic Priority #1) - Step-by-step implementation of new law on university governance, including establishing a mechanisms for independent audit/assessment and certification that institutions have the capacity to assume full responsibility for autonomy under the new law - Leadership and coordination of national and institutional-level capacity-building (see Strategic on Capacity Building) - Coordination of multiple national initiatives related to higher education reform <p>[Link with Capacity Building recommendations for MOES leaders and other design team members, e.g., site visits to selected buffer agencies and seminars with international experts conducted within and outside Kazakhstan]</p>		
Establishment of new national-level higher education leadership/coordination/implementation entity based on recommendations from Design/Innovation Team	October 1, 2014—December 31, 2014	<p>Delays in completion of Design/Innovation Team report</p> <p>Need to obtain changes in laws in order to establish new entity</p>
Continuing capacity building and technical assistance from international experts on functions and tasks of new entity	2015-2020	Lack of national commitment and funding for capacity building

Strategic Priority Number 2 (ii) : To redesign the governance of Kazakhstan national and state universities to establish by 2020 a network of autonomous, high quality, national and globally competitive institutions.

Action Steps: the Roadmap	Timeline	Risks
<p>Draft new Law on Universities, modeled on the Nazarbayev University (NU) and Intellectual Schools (NIS) Law (references to sections of the Law for NU and NIS):</p> <p>Each university is an autonomous educational</p>	2015-2016	Capacity to draft new law depends on the organization of a new national-level higher education leadership/coordination/implementation entity (Strategic Priority #1)

Action Steps: the Roadmap	Timeline	Risks
<p>organization created in order to carry out activities in the area of post-secondary, tertiary, post-graduate and supplementary education, research and/or scientific and technical activities, the creation of modern educational, scientific infrastructure and other activities in accordance with its Charter (Chapter 2, Article 3, sec. 1)</p> <p>The legal status of each university is as a non-profit organization, established by the University, other legal entities, the university owns the majority of the institutional assets and has the authority and responsibility to management these assets.. (Chapter 1, Article 1, sec. 3)</p> <p>Principles for university governance (based on Chapter 1, Article 3) to include:</p> <ul style="list-style-type: none"> Academic freedom in developing educational programs and the choice of forms and methods of implementation of the educational activity, areas of research; Integration of education, science and industry-the inseparability of the educational process of scientific and practical activity at the University, providing strategic partnerships with organizations of science and entrepreneurship; Autonomy and self-management-autonomy of University in economic-financial, administration, and decision-making; Collegiality in decision-making-decision-making related to University board of trustees and internal governance and management, Social responsibility and transparency-the development and participation of the University in socially important projects in order to improve the well-being of society, ensuring transparency in all areas of its activities. Provide for the composition, modes of appointment, and powers of Boards of Trustees (comparable to provisions in NU Law) Provide that the Board of Trustees shall have sole authority to appoint and set the terms of employment of the President, senior leadership, and academic staff of the 		

Action Steps: the Roadmap	Timeline	Risks
university Design a new finance policy, including a University Fund comparable to the University Fund for NU, for universities transferred to autonomous status under the new law (see Strategic Priority on Finance).		
Obtain approval of new university law regarding the legal structure for all national and public universities	2015	Law will not be approved or will be applicable to only a limited number of universities
Transfer four national universities currently engaged in “pilot” of new university governance structure (Al-Farabi Kazakh National University; L.N. Gumilev Eurasian National University; Abay Kazakh National Pedagogical University; and Kazakh National University) to permanent status of new university governance structure	2016	Boards of trustees, presidents, and institutional academic and finance lack capacity to assume responsibility entailed in increased autonomy
Transfer remaining national universities (five) to new university governance structure	2017	Boards of trustees, presidents, and institutional academic and finance lack capacity to assume responsibility entailed in increased autonomy
Establish step-by-step process for moving all remaining public universities to new university governance structure by 2020	2015	Lack of capacity at the MOES or other entity to develop process
Complete criteria for determining readiness of universities in regions outside Astana and Almaty to be transferred to new legal status, including the readiness of public universities within regions outside Astana and Almaty for moving to the new status. Criteria should include, but not be limited to: A strategic plan for how university intends to contribute, in collaboration with the general secondary, TVE, and other HEIS in the region in narrowing the gaps in access, retention and completion of higher education (pathways between and among sectors) of the region’s population compared to the national’s major urban areas (Astana and Almaty). A board of trustees, president, and internal governance structure (academic senate, provision for student participation in governance) consistent with provisions of new university law	2015	Lack of capacity at the MOES or other entity to develop criteria and organize the steps and capacity building to guide universities to new status

Action Steps: the Roadmap	Timeline	Risks
<p>and international best practice</p> <p>Accreditation of the institution and the majority of its academic programs by national or approved international accrediting bodies</p> <p>Capacity to use/data information in strategic planning and management of the university</p> <p>Certification by an independent external assessment that the HEI has the capacity to assume self-governing responsibility</p> <p>Provide for four (4) cohorts of universities for transition to new statute each for the years 2016, 2017, 2018 and 2019.</p> <p>Include within each cohort both remaining public universities in Almaty and Astana as well as all public universities within one or more regions. In other words, move all public universities within a region (for example, both a state university and pedagogical university) to the new legal status simultaneously.</p> <p>Consider consolidating universities under a single governing structure in regions with which there are two or three comparatively small institutions and the lack of capacity for each university to be self-governing.</p> <p>Establish a process for universities with a current governing structure of a joint stock company to apply for transition to the new university status, provided these universities meet the established criteria (see above)</p>		
<p>[see Capacity Building section] Establish a capacity building/technical assistance and leadership program to prepare each cohort of public universities for the transition to new legal status, including, but not limited to:</p> <p>An independent assessment of institutional strengths and weakness (for example, the adequacy of internal governance and management capacity)</p> <p>Establish a development/transition plan for each university</p> <p>Design leadership/professional</p>	2014	Lack of capacity at the MOES or other entity to develop and lead a capacity building strategy

Action Steps: the Roadmap	Timeline	Risks
<p>development programs for presidents, chief academic and finance officers, and academic staff for the transition to new legal status</p> <p>Design leadership development programs for newly appointed boards of trustees</p>		
<p>Select 2017 cohort of universities to be transferred to new legal status, selected from the remaining state universities in Astana and Almaty, and all public universities within one or more regions</p> <p>Complete selection/appointment of members of boards of trustees for all selected institutions (class of 2016)</p> <p>Complete transition plans for each university (class of 2016)</p> <p>Conduct capacity building, leadership/professional develop training for all members of boards of trustees and institutional leaders (class of 2016)</p>	2017	<p>Universities selected for transition lack the capacity to organize boards of trustees, appoint presidents, and put in place necessary internal governance and management structures</p>
Transition cohort of 2017 public universities to new status	2017	<p>Same as above. Selected universities are unprepared to make the transition</p> <p>Lack of capacity and incentives for strategic planning and for collaboration across general secondary, TVE and higher education</p> <p>Deeply imbedded institutional cultures block the needed internal institutional reforms despite significant investments in capacity building and professional development</p>
Require each university transitioned to the new legal status to report annually on (1) progress toward implementing new autonomies, and (2) progress in developing collaborative relationships between general secondary, TVE, and universities for access, retention, and completion (pathways between and among sectors)	2017, 2018, 2019	Progress reports will not provide an accurate assessment of progress
Conduct an independent audit of progress in implementing new autonomies; universities failing to make progress should be put in a probationary status subject to being placed under a “special master” or other arrangements designed to provide oversight and guidance in their actions necessary to achieve full	2018, 2019, 2020	<p>Once a university has moved to new legal status, political pressures will limit the capacity of the MOES to reassert previous controls.</p> <p>State leverage for change will be dependent on implementation of new finance policies [see Strategic Priority #1 on Finance] and</p>

Action Steps: the Roadmap	Timeline	Risks
autonomy.		accreditation/quality assurance processes
Sustain capacity building for universities that have transitioned to new university status in previous cohorts	2017, 2018, 2019, 2020, and beyond	Lack of capacity at the MOES or other entity to continue capacity building

Strategic Priority Number 3: Advancing Reform in Kazakhstan Higher Education by Building the Capacity of Non-Research Tertiary Institutions and Launching the Kazakhstan Higher Education Leadership Fellows Program

Kazakhstan has made major strides in developing its system of higher education. Significant efforts to increase the research and innovation capacity of the country's leading universities are particularly noteworthy. International partnerships have been created to collaborate on research and innovation, new graduate education programs have been established, state funding for research universities has been instituted and new laws to provide an autonomous structure for national universities is in place. In addition, high performing students seeking graduate degrees may qualify for the Bolashak scholarship to study overseas with full government support, provided they return to Kazakhstan to work for at least five years after graduation. While there continue to be concerns related to the development of research capacity in Kazakhstan, particularly regarding the bifurcation of the research enterprise between Research Institutes and Universities conducting research, Kazakhstan's effort to develop its research universities is impressive.

In contrast, there has not been a parallel effort to invest in and develop the nation's non-research tertiary institutions ultimately responsible for the education of most of Kazakhstan's citizens, and essential to address the serious regional equity issues and build greater social cohesion. Also, unless serious attention is paid to providing tertiary education to more Kazakhs citizens, it is unlikely that Kazakhstan will reach global standards of competitiveness in higher education over the coming decades. Nations with the most competitive research sectors have also developed their non-research tertiary institutions in order to increase human capital for a more competitive economy and cohesive society.

The Roadmap plan to develop this sector of higher education is consistent with the strategies to develop the research capacity of national universities and the National Intellectual Schools (NIS). Both have drawn on the expertise and guidance of international partners to understand and implement best practice in education while Kazakhstan education leaders are responsible for implementing change.

The Roadmap project identified three higher education priorities for Kazakhstan: 1) reform of higher education finance; and 2) reform higher education governance, and 3) building the nation's capacity to further develop tertiary education. In order to succeed, investment in the human capital at the Ministry and non-research institutions of higher education must be a high priority.

Action Steps: The Roadmap

Create an office within the Ministry of Education and Science (MOES) responsible for the implementation of the Roadmap for Higher Education, 2015-2020. A director and staff, advised and supported by an International Steering Committee, will assume primary responsibility in working with government and institutions of higher education to implement the Roadmap, initially focusing on creating the necessary legal framework for autonomous higher education institutions that are publicly financed for their public mission.

This office will work with regional clusters of institutions to implement reform in the finance and governance of non-research tertiary institutions.

The director of this office, guided by the international steering committee, will also lead the *Higher Education Leadership Fellows Program* to develop the human capital necessary for the next phase of higher education reform in Kazakhstan. Fellows from MOES and from the qualified regions will be eligible to participate in the program.

Step One

- Determination of criteria for institutional readiness in the regions to participate in the Roadmap reforms related to higher education governance and finance.
- The selection of Regional clusters of institutions to implement reforms in governance and finance.
- Announcement of the creation of the first *Higher Education Leadership Fellows Program*.

Step Two

- Identification of Roadmap Higher Education Director to implement the Roadmap priorities through regional clusters and administer the *Kazakhstan Higher Education Leadership Fellows Program*.
- Identification of a small steering committee to guide the Director and MOES on the regional clusters, as well as the *Kazakhstan Higher Education Leadership Fellows Program*.
 1. Development of selection criteria for Director of the Roadmap office.
 2. Develop a clear statement of purpose for the Roadmap Office to implement higher education reforms 2015-2020.
 3. Identify an application and nomination process to select the first cohort of Fellows [about 13-15 people].

Output: Selection of a high calibre Program Director to work with the Steering Committee and MOES.

- Selection of the International Steering Committee (3-5 people with identified chair).

Output Indicators

- Selection criteria for Program Director identified.
- Recruitment of possible Program Director candidates (possibly an international higher education recruiting firm).
- Interviews of Roadmap Program Director conducted. Director selected.

Step Three

In collaboration with the international steering committee, develop plans for the first annual cohort of the *Kazakhstan Higher Education Leadership Fellows Program* to target critical institutional and MOES leaders involved in the reform of non-research tertiary higher education.

Outcome Indicators

1. Identify MOES leaders and leaders of non-research tertiary institutions with responsibility for the development of higher education governance and finance allocation policies, data collection policies and other relevant areas to building a strong finance and governance infrastructure at the institutional level.
2. Develop the program for Fellows that focuses initially on policies related to effective governance and finance of higher education.

Output

- Selection of Director of Roadmap Office.
- Develop criteria for selection of *Higher Education Leadership Fellows*
- Interview and selection of first cohort for the *Higher Education Leadership Fellows Program* (maximum of 10-13 annually).

Output Indicators

First cohort of MOES and institutional leaders chosen for *Kazakhstan Higher Education Leadership Fellows Program* with a focus on understanding international best practice in higher education governance and finance.

Step Four

Selection of regional clusters of non-research tertiary institutions that will collaborate to improve levels of educational attainment within the region.

Outcome Indicators

- Identify criteria for selection of regional clusters of institutions.

Output

- The identification of 3-5 regional clusters of non-research tertiary institutions to collaborate on best practice in education.

Output Indicators

- Process for selection of regional clusters identified by Roadmap Office.
- Identify locations where it would be best to have regional clusters of institutions working together to improve educational opportunity (need some easy wins).

Step 5

Develop a network of non-tertiary leaders (not part of the Fellows program) of higher education for ongoing dialogue related to finance and governance issues.

Outcome Indicators

1. Regular opportunities to convene leaders in non-research tertiary institutions to discuss challenges regarding changes in governance and finance of higher education. This should include those selected in the *Kazakhstan Higher Education Leadership Fellows Program*, but others as well.
2. Opportunities for collaboration across regional clusters may be developed as a result of regular convening.

Output

A cadre of Kazakhstan higher education leaders who are engaged in learning and implementing change in their institutions and with their regional partners.

Output Indicators

A schedule of quarterly convening opportunities each year with Kazakhstan higher education leaders from non-research tertiary institutions and international partners, when appropriate.

Step 6.

An annual assessment of the Roadmap Office working with the regional clusters and the *Kazakhstan Higher Education Leadership Program* to gain insight into what is helpful to those participating in both the leadership program and well as the regular convening of leaders across the region.

Outcome Indicators

Selection of an evaluator who will interview and/or survey leaders participating in the Fellows program or attending professional meetings across regions.

Output

An evaluation to inform the development of Fellows program and the convening (or professional meetings across regions).

Output Indicator

The development of an evaluation procedure for Fellows and professional meetings.

Implementation Strategy: Pilot education reform at regional and institutional level through an Innovation Fund with a focus on the creation of regional clusters of institutions

National and Institutional leadership. As discussed in Strategic Objectives 2 and 3, the vision and commitment of the Minister and officials of the Ministry of Education to the national education strategy and the clarity with which the reform agenda is communicated to students and their families as well as to teachers and institutional leaders are the key factors in the long term success of any reform programme. Once the strategy has been agreed with Government, a leadership challenge for the Ministry is to look for creative ways of ensuring that the strategy is effectively implemented taking into account the diversity and numbers of higher education stakeholders.

All Strategic Objectives include recommendations and actions plans to address the drafting of the required legislation for the necessary funding and governance changes at system level. However, it is considered that a bottom up implementation plan to demonstrate the benefit of and pilot reform through an Innovation Fund which would provide incentives for the required institutional behaviour and build capacity throughout the system (Strategic Priority No. 3) could be a promising instrument for initiating reform at institutional and local level.

- The **advantages** of a competitive fund are that it provides incentives for institutional change and serves as an entry point in demonstrating the benefits of modernisation to other stakeholders. Such funds may also provide a regional focus which in the case of Kazakhstan would begin to address the access and relevance issues identified in all three Roadmap Reports. Moreover, because institutions, as part of the competitive bidding process, are encouraged to review programme quality, governance and efficiency and to undertake cross institutional collaborative work, the systemic benefits accruing from the initial phases of fund preparation process are often substantial. Even if unsuccessful, these bid preparation activities encourage an institutional culture that is more open to change and is more regionally focused. Experience with innovation funds in education reform has been relatively positive (e.g. the experience of HEFCE in the UK, the HEA in Ireland and the Innovation Fund for reform in competitively selected HEIs in Russia in 1998-2000 funded by the World Bank).
- The **risks** associated an Innovation Fund are similar to those of Pilot or Demonstration Projects where difficulties may be experienced in rolling out [scaling up] pilot programmes and mainstreaming them at a system level. There are also risks that reforms may falter before the benefits of a reform programme can be demonstrated. Also, in the case of Kazakhstan there may be a certain amount of reform fatigue and a lack of enthusiasm at the start up phase because of too many other initiatives in the education sector. Kazakhstan already has

considered the latter issue in the development of its own pilot and demonstration projects (e.g. NIS, Kassipkor and Nazarbayev University) and is familiar with possible mitigation strategies. Moreover, the team considers that were the Roadmap project to rely on a top down approach alone, there could be a greater risk of failure to develop ownership of the modernisation programme in universities and among stakeholders.

Accordingly, it is suggested that an Innovation Fund with a focus on the creation of regional clusters of institutions be considered as an essential part of the Roadmap implementation strategy.

Goal of Proposed Innovation Fund

The primary goal of the proposed fund would be to provide support for initiatives and improvements based on the objectives of the Roadmap project in one or two competitively selected HEIs. The Fund would disburse finances to at least one or two institutions selected following a competitive process based on agreed criteria. These institutions would act as focal points for qualitative change for Kazakhstan's education system and would link at least one Pedagogical Institution and one TVE [Kassipkor] centre in an existing Higher Education Institution. All three participating institutions would demonstrate the capacity for modernisation and for the development of innovative programmes and activities which incorporate efficiency measures, governance reform and capacity building activities. All institutions would also demonstrate willingness to work together to address the education needs of regional populations paying particular attention to the teacher education requirements set out in the Roadmap documentation.

Where appropriate the development of one or more Regional Institutional Clusters could also be one of the goals of the Innovation Fund as set out in the institutional selection criteria. Regional Clusters would have as their objectives a focus on the cross cutting sector issues identified in all three Roadmap reports:

- **Access Objective:** Improved access, transfer and progression pathways into and through the institutions in the cluster, and provision opportunities for pathways between further education and higher education.
- **Quality Objective:** Improved quality through development of centres of excellence. Within the cluster students should have access to the highest standard of tuition and facilities within real and virtual centres of excellence, which would create the conditions for the development of new and innovative fields of study and research.
- **Innovation/Industry Linkage:** Improved engagement with business and community and provision of access to the full range of supports which the education system can offer including knowledge transfer, business incubation services throughout the region.

Action Steps

1. Design of criteria for the selection of HEIs to include prequalification criteria, eg. how to develop a long list of those institutions that would meet that meet formal competitive requirements with regard to the objectives of the Innovation Fund as set out above. **February 2014.**

2. Decision on how to resource the proposed Innovation Fund (budgetary or extra budgetary sources). **February 2014**.
3. Appointment of Independent Review Panel (with international members), **March 2014**.
4. Development of Detailed Operational Manual for the Innovation Fund. This manual would set out the steps required to design an Innovation Fund, including the development of a communication strategy, bidding and pre-qualification documents, and selection procedures, **April 2014**.

Annex One Higher Education Finance Workshop

Participants: 10-15 high-ranking officials from the ministries of Education, Planning, and Finance in the RK.

Faculty: 3-4 international experts on national/state higher education finance and resource allocation policy.

When: February 2014

1. The place of finance in the broader array of public policy regarding higher education
 - planning/establishing goals
 - regulation
 - accountability/monitoring/quality assurance
 - the role of data
2. The components of higher education policy
 - allocations to institutions
 - tuition/student payments
 - state grants/student financial aid
3. Principles for design of finance system
 - transparency
 - promote intended consequences
 - not subject to manipulation/corruption
 - Etc.
 - benchmarking
 - examples
4. Principles of implementation
 - Involvement of key stakeholders
 - Transitioning
 - Examples
5. Using this material as guidance, develop a detailed outline of a new finance model for Kazakhstan.