



EDUCATION: KEY TO WELFARE AND EXTERNAL EUROPEAN PARTNERSHIPS

KARL AIGINGER

1. MOTIVATION AND OUTLINE

Cooperation in education and partnerships with non-European neighbours in the East and South will shape the future of the ageing continent as well as the role of Europe in the globalising world. This is grossly neglected in policy, media and the public opinion. One reason for this is that the importance of education for incomes and well-being in Europe is generally well known, but not adequately reflected in the current strategy of the EU or its member countries. A consequence of this is that Europe also does not invest into cooperation and stability in its potentially stable neighbourhood. The possibility and necessity of an education-based partnership with neighbours is the core of the strategy we propose.

This report recalls the benefits of education for individuals and societies. Indicators are available to monitor inputs and outcomes of education in both developing and industrialised countries. Barriers and enablers for improving the education systems are reported. More closely connecting education to the Sustainable Development Goals as defined by the UN Agenda 2030 is recommended.

We maintain that Europe needs internal reforms and a new partnership with its neighbourhood. Education is the best contribution Europe can offer for eliminating poverty, reducing conflicts and increasing growth and stability in the European Neighbourhood, as opposed to "silk roads" or other megaprojects, or fighting terrorism through military interventions. We sketch a strategy of how a closer cooperation in education between the European Union and its neighbouring regions could solve existing economic and social problems in Europe and at the same time make the European Neighbourhood (ENB) a dynamic and stable region, able to provide jobs for its fast-growing population. As the European Neighbourhood the study defines non-European countries in the East, the Black Sea area, the Middle East and North Africa; in the wider sense we also include Sub-Saharan Africa¹. Education is also defined in a broader sense as including investment into problem and conflict solving, governance and rule of law, social innovations, informal competencies and cultural dialogue.

The report carves out preconditions for an education-based strategy and suggests general principles that Europe has to follow to maximise the impact of this strategy in a quickly changing world. It makes a rough estimate of how much additional investment of Europe is needed, and how it can be financed with a minimal direct burden on taxpayers. Including the long-run returns of the education-based strategy, a net advantage for European finance can be envisaged.

The final goal of the study is to delineate partnerships with non-European neighbours built on mutual learning and understanding that will allow Europe to shape "responsible" globalisation and enjoy rising incomes, social cohesion and well-being at home.

¹ If we use the term ENB without specification it refers to the wider non-European neighborhood



2. KNOWN BENEFITS BUT INSUFFICIENT CONNECTION TO SOCIETAL GOALS

Benefits recalled

The benefits of education are far broader and deeper than merely achieving higher incomes. They range from the individual level to that of society, from the economic advantages to broader welfare and health². Benefits exist for each country, but they can be amplified with international spillovers.

At the *individual level*, education empowers people, increasing incomes and the probability of getting jobs. Each year of formal education increases life incomes in industrialised countries by up to 10%³. Unemployment is low for persons with at least an upper secondary education, but high for low-skilled workers and even higher for school drop-outs. Education improves health; life expectancy differs by up to four years for different education levels. Education reduces the probability of delinquency and criminal conduct. Educationally driven advantages increase over lifetimes, as learning begets learning (Bock-Schappelwein, 2018; OECD, 2017). Education is the basis for critical and logical thinking, as well as for solving problems and conflicts. It ensures social cohesion, cognitive skills, self-efficacy and resilience, and is important for social and political interaction.

At the *societal level* education tends to reduce inequality. This is the case even if for individuals the quality and quantity of education itself is often "inherited" in the sense that it depends on the income, regional background and highest level of formal education of the parents. Additionally, in developing countries the children often have to help to nourish a large family⁴. These trends petrify income differences over generations. Differences by gender in the level of formal education have been large; today, in some industrialised countries females have higher levels of formal education, but this does not transpose into adequately paid jobs. Education furthermore will increase resilience against climate change and reduce vulnerability to natural disasters (Muttarak - Lutz, 2014).

In general the benefits for society are larger than for individuals, giving governments a decisive role in promoting and shaping education systems. Externalities can be technical (one innovation spurs the next) and labour market related (cumulating job experience); spillovers may come by learning from educated and from crime reduction. In categorising societal externalities Usher 1997 adds fiscal benefits (higher tax revenues) and the greater ability of richer societies to support to the poor and up to then uneducated ("altruistic externalities").

Changes over time and with rising income

Education is important for the growth and competitiveness of a country. The role changes qualitatively with rising incomes. While education is beneficial for all societies, in low-income countries basic education determines economic prospects and these countries need heavy investments in their physical infrastructure. A functioning public sector has to guarantee territorial integrity and reduce the impact of tribal wars and local landlords. At the medium level, upper secondary education including vocational and lifelong training is gaining importance. For high-income countries tertiary education – together with an excellent innovation system – is becoming

² See Lutz – Kebede (2018).

³ The literature struggles to identify the "pure" effect of education, since individuals engaging in education tend to have other favourable personal characteristics (ambition, discipline, etc.; this effect is called the "sheepskin effect").

⁴ This reflects the high "opportunity costs" of learning.



the core factor determining growth and economic strength. At the technology frontier the share of top universities and their ability to attract best researchers is decisive (Aghion et al., 2010)⁵.

The impact of education on welfare can be increased if education systems are more closely connected to economic and societal goals (broader than income growth and competitiveness), if education is not delegated to specialists and insiders, and methods and goals change in response to challenges, preferences and technologies⁶.

Connecting to societal goals and personal well-being

Environmental goals, nutrition, health and the management of personal life in general were for a long time nearly totally excluded from curricula and textbooks. The same holds for intercultural learning and the integration of outsiders and the underprivileged in the educational system, e.g. the foreign-born and the disabled. Societal goals and intercultural dialogue are also underrepresented in teacher training.

Societal goals should be implemented into and discussed in all learning institutions from the preschool to the top university level. Teaching and training should not be jobs exclusively delegated to experts and insiders. Learning about opportunities and choices and other cultures should find its way into text books and curricula. All these three reform ideas should be essential elements of the evaluation of individuals and institutions, and they are all-important for the education of teachers, trainers and managers of educational units.

The probably best formulation of societal goals is given by the Sustainable Development Goals (SDG) provided by the UN. It defines 17 sub-goals. Among these, Goal 4 relates to education calling for ensuring quality education and lifelong learning opportunities. Ten targets then make the status and progress of an education system measurable and internationally comparable (see Table A1)⁷. The SDG 4 goal is considered key to supporting other SDG goals and breaking the poverty cycle, reducing inequality and supporting gender equality.

Figure 1: European Neighborhood



Source: own definition of Non-European ENB including Sub-Saharan Africa

⁵ This led to European attempts to copy Silicon Valley and MIT, creating top universities, technology parks and supporting technological start-ups.

⁶ Societal goals are now well-defined, whether it be through the attempts of the Stiglitz-Sen-Fitoussi Commission and their impact on the OECD's Beyond GDP goals or through the provision of the "sustainable development goals" (SDG or agenda 2030 by the UN) and similar programs of the European Commission.

⁷ The ten sub goals ("targets" labelled as 4.1-4.7 and 4.a-c, see Box 1) are formulated in a preliminary way so as to also match with the necessities and problems in developing countries. But it is all-important that the goal also remain on the agenda in industrialised countries. Inclusive and empowering education should also be an obligation for multinational firms, which could be included in trade and investment contracts.



Reform trends

Greater attention to broader goals and less reliance on fixed past knowledge has recently been seen in the measurement of learning outcomes. The OECD's Pisa Rating is gradually developing into the direction of broader goals of education. It began with the measurement of basic skills (literacy and numeracy); later it addressed problem-solving capabilities. It also provides data with which to analyse the effects of the socio-economic background and differences in school governance, as well as efforts to reduce inequitable inheritances. And international reports in general distinguish between educational inputs and outputs, where the inputs are, for example, access to formal schooling and enrolment and the output is literacy. The definition of literacy is now split into literacy in the literal sense of identifying letters or words, and the more comprehensive form of being able to understand texts ("reading skills"), and these definitions are combined with other information. The survey of adult skills in the PIACC report measures adults' proficiency in key information-processing skills – literacy, numeracy and problem solving in technology-rich environments – and gathers information and data on how adults use their skills at home, at work and in the wider community⁸.

Box 1: Education as SDG Nr. 4 and its ten targets

The overall goal is defined as "To ensure inclusive and equitable quality education and promote lifelong learning opportunities for all":

- 4.1. ensure that all girls and boys have complete free, equitable, quality primary and secondary education, leading to relevant and effective learning outcomes (as indicators the agenda proposes: level 2 in PISA reading/ math; out-of-school rate, number of compulsory education years as indicators)
- 4.2 quality early childhood development (care, pre-primary education, readiness for primary education)
- 4.3 equal access to affordable and quality technical, vocational and tertiary education, including universities
- 4.4 increase ... number of youth and adults ... who have skills for jobs and entrepreneurship (incl. IICT, Digital)
- 4.5 eliminate gender disparity ... all levels of education and training by 2030, incl. vulnerable
- 4.6 by 2050 all youth ... substantial proportion of adults ... achieve literacy and numeracy
- 4.7 knowledge and skills to promote sustainability, non-violence, human rights, cultural diversity
 - 4.a build up and upgrade education facilities (resources for learning from water to buildings)
 - 4.b by 2020 expand scholarships to developing countries incl. vocational training, ICT
 - 4.c increase qualified teachers, incl. international co-operation for training

Prosperous countries depend on skilled and educated workers, but more than ever they depend on a set of coherent strategies that link education outcomes to the needs and demands of society in such a way as to foster inclusive growth (Angel Guerria, OECD Education at a Glance, 2017).

⁸ <http://www.oecd.org/skills/piaac/>



3. EMPIRICAL FINDINGS ABOUT SCHOOL GOVERNANCE

Shifting attention from inputs to outcomes

Access to formal schooling is important for well-being and progress, but it is not sufficient. Recent studies show that educational outputs can be very different, regardless of access to schooling, in developing as well as in industrialised countries. Attention has to be given to inputs, teaching methods, institutions and educational attainment rates. The ambitions of teachers are important, and the same holds for the school-to-work transition and the embodiment of education in society at large.

Although the UN millennium goals included inclusive quality education "for all," still only 91% of primary school children are currently enrolled in schools worldwide (with large differences between industrialised and developing countries)⁹. This leads to the interpretation that the millennium goal of universal primary education has been missed, even as far as the input side is concerned (Bock-Schappelwein, 2018).

24% of pupils of the relevant age in Sub-Saharan Africa are not enrolled, and 30% in West and Central Africa¹⁰ with especially high non-attendance of primary school rates reported in Somalia (76%), South Sudan (74%) and Liberia (57%; see graph 2 in JBS, 2018). Within Asia, South Asia (with India and Pakistan) has high non-enrolment shares (25%). High enrolment is reported for East Asia and Pacific countries, with only 3% of pupils not in schooling at the relevant age.

While the out-of-school rate for primary school age is below 1% in most European countries, some CEC countries¹¹, the Western Balkans and Turkey report somewhat higher rates (Turkey 5%, Bosnia-Herzegovina 4%). In East Asia and the Pacific, non-enrolment is 3%; in the Middle East and North Africa it has reached 6%. In Sub-Saharan Africa but also South Asia it is below or above 25% (world 15%, in the group of the least developed 24%).

A main outcome indicator is the literacy rate. It is reported to be 95% in upper-middle-income countries, and 60% in low-income countries. Illiteracy is high in densely populated low-income countries such as Bangladesh and Brazil. In the *European Neighbourhood* illiteracy is high in Egypt, Nigeria and Afghanistan.

Foundational literacy

But even if the inability to read by identifying words is next to zero in industrialised countries, a lack of foundational literacy – defined as the ability to understand the meaning of texts – persists. As the PIAAC report for the educational skills of adults stated, in almost all analysed countries a sizeable proportion of adults — around one in five — has poor reading and poor numeracy skills (OECD, 2016); in Turkey it comes close to half of the tested population.

⁹ UNESCO - Institute for Statistics (Global database) 20. See also UNICEF, OECD, and the European Commission.

¹⁰ According to household surveys, see UNICEF (2017).

¹¹ In Eastern Europe and Central Asia together, non-enrolment is 5%.



Table 1: Skills matter: Literacy proficiency among adults

	Below level 1	Level 1	Level 2	Level 3	Level 4 or 5	Missing
Jakarta (Indonesia)	32.08	37.18	24.79	5.40	0.48	.
Turkey	12.66	33.07	40.24	11.51	0.54	1.98
Italy	5.52	22.16	41.99	26.36	3.26	0.65
Greece	4.91	21.61	41.03	25.99	5.48	0.99
Spain	7.21	20.28	39.15	27.83	4.77	0.76
Slovenia	5.97	18.94	37.72	31.22	5.57	0.57
France	5.33	16.23	35.87	34.03	7.70	0.84
Singapore	10.11	15.99	30.52	32.26	10.10	1.02
Ireland	4.28	13.16	37.57	36.02	8.50	0.47
Austria	2.45	12.84	37.18	37.29	8.42	1.83
United States	3.92	13.57	32.55	34.22	11.51	4.23
<i>OECD average</i>	<i>4.48</i>	<i>14.39</i>	<i>33.88</i>	<i>35.39</i>	<i>10.63</i>	<i>1.45</i>
Germany	3.28	14.24	33.93	36.42	10.65	1.48
Korea	2.22	10.64	37.04	41.72	8.12	0.27
Denmark	3.81	11.89	33.97	39.94	10.01	0.38
Czech Republic	1.54	10.26	37.48	41.45	8.65	0.62
Canada	3.81	12.57	31.71	37.29	13.74	0.87
Russia	1.56	11.48	34.91	41.20	10.84	.
Estonia	2.01	11.00	34.27	40.60	11.73	0.38
Australia	3.13	9.42	29.16	39.37	17.01	1.91
Sweden	3.68	9.58	29.08	41.57	16.08	.
Netherlands	2.56	9.12	26.43	41.48	18.15	2.26
Finland	2.66	7.95	26.50	40.70	22.19	.
Japan	0.56	4.30	22.77	48.56	22.56	1.24

Source: OECD (2016)

And illiteracy in the narrow sense "is returning" to core European regions through young refugees, who often had no school access at home. This also holds for the total of the six million young refugees at primary or secondary school age leaving their country often living in refugee camps or slums in North Africa or the Middle East. About 50% of them had no school access in their home country. More than half of the out-of-school refugee children are located in just seven countries (Chad, Congo, Ethiopia, Kenya, Lebanon, Pakistan and Turkey). Refugees often live in or come from countries where governments are already struggling to educate their own children (Bock-Schappelwein, 2018), and in regions where females do not have access to schools or attend them infrequently (e.g. due to the burden of early and multiple pregnancy or the necessity to contribute to the family income).

While the out-of-school rate for primary school age is below 1% in most European countries, some CEC countries, the Western Balkans and Turkey report higher rates. In East Asia and the Pacific non-enrolment is only 3%. In Eastern Europe and Central Asia as well as in the Middle East and North Africa it is 6%, respectively 7%. In Sub-Saharan Africa but also Southern Asia it is about 25% (world 15%, in the group of the least developed 24%)¹².

¹² World development indicators.



Barriers and enablers and for education in development to be addressed

Reasons for poor outcomes

Children often arrive at school unprepared. Malnutrition is a problem; pupils are ill or even physically stunted (add to this unsuitable clothing, caring responsibilities for brothers and sisters, great distance between home and school). Low parental investment (lack of awareness), a harsh environment, and high opportunity costs of school attendance (due to the loss of supporting family income at home) prevent effective learning.

Teachers lack the necessary skills themselves; they often come from a disadvantaged background. Those aspiring to become teachers often have below-low basic skills themselves. Discipline is often low; the WDR cites tests in which one fifth of the teachers were not at school, another fifth not in the classroom.

Input gaps – such as books and computers – may be a problem, but even if learning material is provided, books are often locked up in cupboards and computers, and in 40% of the test cases were never used (World Bank, 2018).

A deeper cause of low outcomes is that school management is often detached from learning. Political interest may even be swayed against the better-educated people, who are then better able and willing to shape their lives and environment. The existing elite or political actors may feel challenged by educated people, who may call for less inequality and corruption and more participation in the political process (see the Arab Spring, Wurm, 2018).

Enablers and reform elements Europe should support

Analytical research provides five enablers essential for education in developing countries, which reveal determinants of success, which should be at the centre of a stronger European engagement in its Neighbourhood.

Vulnerable groups need special attention: high-level quality education (outputs as demanded by SDG 4.1) can only be achieved if the problems of vulnerable parts of society are specifically addressed. These include refugees, girls, children with disabilities, ethnic minorities, the stateless and other forcibly displaced persons (World Bank 2018).

Flexibility: Breaking up the border between a period of life in which formal education happens and another in which it is used is essential due to progress in technology and knowledge and the speed of structural change. Early decisions on educational tracks should be deferred, or at least switching between paths has to be possible, including those between theoretical and vocational tracks. Horizontal and vertical flexibility in the system improves outcomes. This also holds for the careers of teachers, who should be able to switch between schools and outside jobs.

Learning outcomes differ from attendance ("schooling") and from rules: Foundational literacy differs from the ability to read single words. School attendance itself is low for the disadvantaged; learning outcomes differ even more according to socio-economic characteristics. The implementation of rules matters: while there is some consensus about criteria for good educational systems, many innovative characteristics for schools in developing countries are designed by ambitious private organisations; they may then not be put into practice (Hammler, 2018).



Box 2: Learning outcomes depend on the implementation of rules (Hammler, 2018)

Escuela Nueva (New School) is a school model designed to improve the learning outcomes of disadvantaged children in Colombia. It is a student-centred learning model, where teachers take the role of mentors and students learn to teach themselves in a flexible multilevel classroom environment that emphasises collaboration, school democracy, and self-responsibility. Outcomes however are below expectations, only slightly different from those of other schools.

A recent study by Katharina Hammler has developed a program implementation index to test the importance of proper program implementation. This index includes the provision of sufficient funds for teacher training and learning resources, but is not limited to purely financial issues: a proper definition of the key inputs and their respective purpose, consistent support for schools and teachers, and an effective monitoring system also need to be in place. The empirical analysis shows a large variation in program implementation across schools, and that the estimated effect on learning outcomes increases dramatically when the program is properly implemented.

The policy conclusion is that attention should be placed on improving implementation capacity. In that light, it is not clear how successful the model can be in environments with weak institutional capacity or without strong political support. While the available evidence suggests that the model can flourish even in the absence of these factors, its success then largely depends on teacher capacity and motivation¹³.

The good news is that transformation can happen in a relatively short period of time: South Korea has shown that even a radical change in the education system is possible. A war-torn society with low literacy rates after WWII achieved universal enrolment in high-quality education by 1995 (World Bank 2018). Liberia, Papua New Guinea and Tonga provided early grade reading within a short time, due to especially evidence-based efforts. Vietnam demonstrates that an economy with much lower per capita income can achieve the same Pisa level as Germany. The following elements are important for transformations and should therefore be at the core of European assistance to neighbours:

Motivation: communicate the crucial role of education for society (growth and development, and a reduction of poverty and conflicts) and individuals (employment, earnings and health). Mobilise and align everyone who has a stake in learning.

Monitor outcomes quantitatively and objectively: few countries have measurable goals for primary and lower secondary schools, and even fewer track learning performance over time. What is essential are actual skills acquired, not years spent at school. Small improvements can raise growth by 2% (WDO). Outside monitoring is important, but goals should be discussed and agreed upon in development assistance¹⁴ policy conclusions.

Invest in the system: Attract talented people for teaching. Strengthen the capacity and powers of management, including principals. Provide strong teaching-learning relationships in classrooms. Improve the training of teachers and mentors. Go for repeated teacher training instead of one-off

¹³ Hammler (2018) based on her PhD Dissertation at Tulane University, New Orleans, LA. Katharina Hammler is the Director for Monitoring & Evaluation at Fundación Paraguaya, where she works on multidimensional poverty measurement, the role of aspirations in poverty elimination, and on monitoring and evaluating program implementation.

¹⁴ Evidence provided by PISA, PIRLS and TIMSS scores, but also the rate of employment of graduates and the well-being of students.



methods. Learners have to be prepared, including grants for the disadvantaged and healthy food for the malnourished. For poor parents, schooling requires tradeoffs. The link between expenditures and outcomes is strong for low-income countries (up to maybe USD 50,000 per capita), but not for high-income countries. Infrastructure is all-important in low-income countries where classrooms are lacking, classes are very large, and missing school infrastructure leads to very long journeys to school.

Reforming organisations: Some degree of school autonomy improves performance. The choice of head of schools is important; it has to be someone free of corruption and political influence.

Preschool focus and all-day schools: offering all-day schools decreases the importance of socio-economic background to outcomes, but has to be accompanied by increased quality and school differentiation. Organisations should respect that the returns are highest for early childhood education, and the payoffs are higher for investment into (up to now discriminated) girls.

Digital learning technologies: Teachers should be aware of different and changing technologies for teaching. Digitisation, internet courses (Fernkurse; "Deutsche Welle") may transform schools, learning habits & environment and learning material.

Attention to the inclusion of migrants: There should be special offers according to social background and for migrants and refugees, as well as the provision of education, schools, training for refugees in camps, oases in deserts, special zones with a high emphasis on schools, education, training and start-ups (Yildirim, 2018).

From pre-fixed content to a reloadable skill set: the learning content has to become more flexible, prevent over-specialisation, promote adapting to new challenges, empowering new occupations, understanding other cultures, reduce the split of insiders vs. outsiders in schools, between the learning phase and working life. Change from pre-fixed content to a transferable and reloadable skill set over lifetimes (OECD, 2017 p. 12, Bock-Schappelwein, 2018).

Given the lack of money in developing countries, the existence of development programs and plans for a new partnership policy, the reforms summarised in this chapter should be areas in which Europe has to increase its financial and human resources.

4. EDUCATION AS EUROPE'S USP AND THE KEY TO A NEW PARTNERSHIP

Towards a new world order

The bipolar world order has ended with the demise of socialism. The position of the US as the sole "remaining" power was neither welcomed by non-aligned countries nor incorporated into a strategy respecting the diversity of cultures and different regional challenges. The US-dominated globalisation phase of the late 20th century was shaped by large firms, big finance and trade and investment agreements with the main goal of market access. Military interventions were ill-devised; they had no role for international organisations and peace brokers. Connecting with civil society did not happen, nor were coalitions for the post-intervention leadership prepared ex ante. As a result, conflicts between religious groups or tribal warlords were no longer restricted through a strong national authority.

European unification may have been bumpy with backlashes, but the unification was successful; it started with six members longing for post-war peace and got 28 members (up to the Brexit), with ten more countries striving for membership. The EU28 is now the largest economic area in the world, but is far from having a common foreign policy; it has no military army and it does not shape globalisation. It has been correctly called an integration machine by the World Bank



(Gill-Raiser, 2012), due to the unprecedented speed of integration of former socialist countries into the EU. It has been called a soft power for "negotiating instead of bombing" by Jeffrey Sachs (Sachs, 2008) and was awarded the Nobel Prize for Peace in 2012.

Table 2: Development of real GDP and population

	Real GDP				Population			
	1970/ 2000	2000/ 2017	2017/ 2022	2000- 2017	2000/ 2017	2017/ 2050	2000- 2017	2017- 2050
	% p.a.			% cumulative	% p.a.		% cumulative	
World	3.6	3.8	3.7	87.8	1.2	0.8	22.9	29.4
Advanced economies	3.2	1.7	1.8	33.3	0.5	0.2	9.4	7.1
USA	3.3	1.8	1.9	36.0	0.8	0.6	15.1	20.1
Emerging and developing countries	4.1	5.7	5.0	157.9	1.3	0.9	25.4	33.2
China	8.6	9.3	6.1	351.6	0.6	-0.1	9.8	-3.2
EU 28	2.5	1.5	1.8	28.8	0.3	0.0	4.4	-1.2
Central and Eastern Europe	2.2	3.3	2.9	72.6	-0.3	-0.5	-5.6	-15.8
Black Sea Region	3.2	4.7	3.5	117.8	-0.2	0.3	-2.5	9.2
CIS (incl. Russia)	1.7	3.9	2.2	93.1	0.2	0.0	3.0	1.2
Middle East and North Africa	3.9	4.4	3.3	109.1	2.0	1.3	41.0	55.6
Sub-Saharan Africa	2.4	5.1	3.6	134.3	2.8	2.4	61.2	116.9
ENB	2.7	4.5	3.1	110.0	2.0	1.8	39.3	77.3
EU 28 and ENB	2.6	2.3	2.2	46.9	1.5	1.4	29.8	60.2

Notes: **Central and Eastern Europe:** Bulgaria, Estonia, Lithuania, Latvia, Poland, Romania, Slovenia, Slovakia, Czech Republic, Hungary; **Black Sea Region:** Armenia, Azerbaijan, Georgia, Moldova, Turkey, Ukraine; **CIS:** Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan; **Middle East and North Africa:** Afghanistan, Algeria, Bahrain, Djibouti, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates, and Yemen; **Sub-Saharan Africa:** Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Republic of Congo, Côte d'Ivoire, Equatorial Guinea, Eritrea, Ethiopia, Gabon, The Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, South Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia, and Zimbabwe; **ENB:** CIS, Turkey, Middle East and North Africa, Sub-Saharan Africa.

Source: IMF, World Bank, UNO. 2017 until 2022 IMF forecast for GDP; 2017 until 2050 UNO forecast for population.

China eliminated poverty and caught up quickly in terms of per capita income with industrialized countries. It is now about to regain its former leadership position through a mixture of importing technology, attracting foreign capital¹⁵ and guaranteeing national unity with a strong policy regime. The boosting of exports – partly supported by an undervalued currency – made it possible to accrue huge financial reserves, which are now searching for large investment. The confidence of the new leadership, ambitious plans to take the lead in many new technology fields, and the necessity to decarbonise its own society to reduce smog and health problems will turn China into an economic powerhouse no longer based on low wages. China is investing in roads to connect its economy to other regions, boost exports even if the wage difference is reduced and secure access to resources. Countries are happy to accept these investments (in "silk roads"), even if this implies

¹⁵ This process was started with special zones with rules different from other parts of China.



a shift in ownership and neglects social and ecological standards, due to a lack of other investors and own money. China is investing in infrastructure from Africa to southern Europe, from ports to logistic centres and railway connections.

Table 3: International comparison of real GDP

	Real GDP/capita		GDP share in world			
	2017		2000	2017	2022	2000-2022
	USD	EU28=100	As %			Difference in %-points
World	11,167	30	100.0	100.0	100.0	0.0
Advanced economies	46,320	125	81.6	57.9	52.7	-28.9
USA	53,287	144	28.3	20.5	18.7	-9.6
Emerging and developing countries	4,955	13	27.6	37.9	40.2	12.6
China	7,163	19	5.0	12.0	13.4	8.5
EU 28	36,946	100	32.5	22.3	20.3	-12.2
Central and Eastern Europe	16,359	44	2.0	1.8	1.7	-0.2
Black Sea Region	16,801	45	1.4	1.7	1.6	0.2
CIS (incl. Russia)	8,354	23	2.8	2.9	2.7	-0.1
Middle East and North Africa	6,765	18	3.5	3.9	3.8	0.3
Sub-Saharan Africa	1,420	4	1.0	1.6	1.6	0.6
ENB	4,792	13	8.7	10.0	9.7	1.0
EU 28 and ENB	11,822	32	41.2	32.3	30.0	-11.2

Notes: See Table 2

Source: IMF, World Bank, UNO. 2017 until 2022 IMF forecast

Education as Europe’s core contribution to a new partnership

In this situation, Europe’s USP has to be investment in intangibles with education at the core of both the internal and external strategy. Europeans have nearly complete "access" to education, literacy is almost 100%, and systems of vocational training provide the practical skills needed in agriculture, manufacturing and high value added services. The diversity of the systems and the ability to integrate immigrants from other countries is given in principle, with notable exceptions if migration is crisis- driven (supply-led) and education in countries of origin is very low. However the reading skills of the children of migrants ("second generation") are poor. Education systems are not only shaped by government, but also by intermediate institutions, with the influence of firms, trade unions, the church and donors. This may be a good start for offering the "European model of education" to other countries, while acknowledging the need for improvements at home. Some projects in this direction have already been started in the official "development policy" of countries, and in institutions engaging in international cooperation and efforts of social organisations (SOS, Helping Hands, Menschen für Menschen, etc.). The European Union has successfully connected people and countries in Europe with the Erasmus program. However, extending these efforts to non-members happens at a very low scale (Erasmus Mundus) and with limited continuity and planning. The EFSI is open to intangible investments including projects on education and lately the for the European Commission’s proposal for a Multiannual Financial Framework for 2021-27 proposes a rise of total efforts for external programs as well as a doubling of the Erasmus funding up to EUR 30 bn extending also the possibilities for international mobility for students and for the first time also in the field of vocational education.



Box 3: Best practice: Austrian Technical College in Shkodra, Albany (Bruckner, 2018)

A best practice example for supporting neighbouring countries, esp. in the Western Balkans, is the Austrian school in Shkodra, in the north of Albania (Bruckner 2018). The intention of the Austrian government has been to support the social and economic development of Albania in its efforts to join the EU. This follows the tradition by Austria since the 1990s of providing educational support for the Western Balkan countries. The school accepts Albanians in the 7th grade (age 12). After final examinations (age 19) they obtain a double certificate: an Austrian HTL-Matura in information technology which allows access to universities all over Europe and an Albanian Certificate of Higher Education (Maturës Shqiptare), which allows access to university in Albania.

The school started in 2007. Most of the teachers in the technical subjects are Austrian, selected and paid by the Austrian government. Those teaching the subjects required by the Albanian curriculum are Albanian. Tuition fees are EUR 860 per year per student. In order to permit children from low-income families to attend the school, a significant number of grants are offered by the Albanian government and private sponsors in Austria.

With 350 students altogether, the number is small but the impact on society, especially in the economically underdeveloped north of the country, is quite significant. At the individual level, the following achievements can be identified:

- * Students gain a good proficiency of the German language which acts as a door opener to the German-speaking part of Europe. The desire to leave the country after graduating is manifest in almost all students.
- * 60% of the school graduates attend university in Austria, some in Germany. Most of them are able to find legal, part-time work in Austria. Many of them intend to stay and work in the EU. Even the prospect of a highly paid job is no motivation to return to Albania, as long as corruption is so prevalent in the country. Establishing own IT and consulting firms might be an incentive to return in the future.
- * Those with no resources to study abroad attend university in Albania. Only a small minority of graduates enter the regular job market at home right after school. Although it is evident that economic development depends highly on the availability of well-qualified technicians in various areas, the attitude of young professionals is that an academic degree is needed to move up in Albanian society, since vocational education does not have a high reputation in Albania. Those who do work within their own country primarily find jobs in call centres where their knowledge of German is the key qualification rather than their technical expertise. Few of the graduates work for internet service providers or related companies.

From the perspective of an individual, the benefits are evident, but from the perspective of society as a whole this seems to some extent to counteract the original intention of establishing a technical school at the upper secondary level in order to provide well-educated technicians for a rising economy, when many small start-up businesses in Albania require an IT infrastructure. Significant brain drain is depriving the Albanian economy of badly needed professionals.

Nevertheless, at the level of society, some important achievements can also be identified:

- * Besides its high professional standard, civic education has been an intrinsic principle of the curriculum. A strong sense of community and social values prepares students for life in an open society.
- * Austrian teachers living in Shkodra and regular visitors from Austria bring together Austrians and Albanians in a unique way. Through these active efforts, Austria has gained a very high reputation among Shkodrans.
- * Another important aspect of civic education is the fact that 30% of the students are women. As graduates from such a reputable technical school they can act as role models for other girls.



Our central message, therefore, is that the extended partnership with its dynamic but heterogeneous neighbourhood should be built on *intangible investment* – from education, training and governance to democratic development and conflict resolution. These efforts must of course be complimented by physical investment, direct investment of firms and peace-keeping efforts. But the unique strength of Europe is not to provide large sums of money for physical infrastructure or to offer military interventions. Education should not be defined in the narrow sense of providing fixed knowledge but as a method of learning, acquiring skills and the technique of problem-solving. It should include the discussion of democratic values, rule of law, and modern governance. Division of power between the executive and the judicial system, independent media, civil organisations and gender equality are further elements of the European system to be offered to Neighbouring countries. That Europe itself has no monolithic systems and that the concepts at the European Community level are to some extent to be developed should not be seen as a disadvantage; offering this diversity to neighbours enables them to choose and Europe to learn what is helpful under different and changing circumstances.

China will always have more money to start large infrastructure projects without hesitating or the necessity to build consortia with partners from other countries. Military interventions and fighting terror regimes will be done by countries having strong autocratic regimes, or as large a military sector as the US (and by countries needing to distract from domestic economic problems). Europe will have to engage in some role to also bolster security, but its strength lies in negotiations, conflict solving and cooperation with the UN, as it is currently doing in the Western Balkans (after helping Croatia and Slovenia to solve border and sea access problems).

From top down to bottom up

European engagement should differ from that of China and the US – and from its own behaviour in past centuries, not only in content but also in its underlying philosophy. It should not be "paternalistic," but start with a dialogue with the recipient countries. It should be discussed with the local regional organisations and existing educational units, and also with existing international organisations from the World Bank to the OECD and the IMF. In official visits between heads of state, educational experts and teachers should be represented as much as firms. Meetings between civil organisations and "youth ambassadors" could precede the meetings. Social media may be invited to report about opportunities for international exchange and dialogue across cultures.

Reforms imbedded in a vision

A big and credible engagement in the Neighbourhood has to be combined with educational reforms in Europe, and problems of governance and cohesion must be discussed. Europe has the realistic chance of becoming a role model for a region with high and continually increasing well-being, as well as ambitious social and environmental standards. It can offer its citizens the largest variety of opportunities and capabilities with which to shape the course of life. It has high life expectancy, while limiting personal and regional income differences.

However, Europe should also try to learn from other regions. Engagement in the Neighbourhood should feedback by looking at the European model and its diversity from the outside, accelerating reforms, and cutting back insider models and conservative curricula.



Box 4: Brain drain, disadvantages for the source country and remedies

Brain Drain is the migration of skilled persons from developing countries to industrialised countries. One in nine is a tertiary-educated, African-born person residing in an OECD country, according to the OECD (2013). Small or island-based African countries are particularly affected, such as Mauritius, but it also amounts to 40% in Zimbabwe and the Democratic Republic of the Congo.

Push factors are poor working conditions, low pay, poor career opportunities, a lack of intellectual freedom as well as political instability. Pull factors are the wish for better pay, more career opportunities, educational opportunities, and ageing in developed countries, increasing demand in the health and care sectors. Trade policy can lead to job losses in certain sectors, as well as conditionality clauses by the IMF. The negative impacts range from a loss of human capital and a loss of tax income to lower innovation and civic participation in public life (IMF, 2016; Langthaler - Hornoff, 2008).

Nevertheless, the reality is more nuanced, and this may lead to policy conclusions. Özden - Phillips (2015) show that African doctors frequently migrate after having practiced in their home countries and that foreign-trained doctors return to Africa to practice. Remittances can also be channelled into private entrepreneurship, education and know-how transfers ("brain gain"), even if this is not given, since they predominantly originate from low-qualified workers. Outward migration may reduce domestic unemployment (IMF, 2016; Langthaler - Hornoff, 2008).

The remittances may alleviate poverty and provide a stable source of income comparable in level to FDI flows (IMF, 2016) and they may offset the costs of education resulting from brain drain (Easterly - Nyanko, 2008).

In contrast to brain drain, circular migration is a potential win-win solution for both parties: on the one hand, labour is supplied to satisfy demand in the "North", on the other hand, Africa gains from remittances, know-how transfers and the non-permanent dislocation of qualified personnel. Switching from asymmetric brain drain to circular migration should be at the core of policy conclusions. Among the possible measures are the provision of service centres for returnees, installing agencies for the reintegration of scientists and professionals (as in Ethiopia, Taiwan, South Korea), simplifying the regulation of enterprises by returnees, but also offering dual nationality and flexible residential rights (Samet, 2013).

The EU currently enables legal circular migration, especially for seasonal workers and qualified personnel. In fighting illegal migration, Art. 13 of the Cotonou Agreement obliges signatories (EU and ACP countries) to repatriate any of their citizens that are illegally on the territories of the other party.

The interests of source countries to increase the return of the qualified and to enable circularity should get a higher priority if Cotonou is renegotiated (starting under the Austria Presidency in the second half of 2018). Conditionality plays a role: the access to EU Visas for African countries is made dependent on effective border protection and their commitment to take back illegal migrants (Langthaler - Hornoff, 2008).

Europe should offer policy measures which lead to a return of the qualified, or to share their benefits, e.g. through part-time engagements (professors and doctors working one term in Europe and another in their home country, trying to find qualified substitutes for their "sabbatical" in the country of destination).



5. EDUCATION-BASED PARTNERSHIP: PRECONDITIONS AND PRINCIPLES

We now define four preconditions and then eight principles for a new partnership. Some of them are more closely related to education, several look independent at first. But looking deeper, the content of education systems provide the basis for building trust, providing the capability for change, for switching to the sustainability goal and accepting that old habit subsidies, including subsidies for dead-end technologies and agricultural surplus production in industrialised countries should stop. Education provides the critical assessment of a country's own position and supports the respect of preferences, goals and abilities of other countries, even if these need assistance and the own country is richer.

5.1. Preconditions

5.1.1 Trust

A precondition for a partnership between Europe and its Neighbourhood in education is mutual interest and trust. Currently, not all European governments, as well as stakeholders in the education systems, and by far not all media and political parties, assess the educational efforts of Europe in Africa, the Middle East and the Black Sea Area as an important task. A common understanding of value systems and models of democracy does not exist among countries, civic organisations or between the European Community and the regional organisations in the neighbourhood. There is no dialogue on economic and social strategies. The OECD primarily has industrialised countries as members; similar organisations in Africa (such as the African Union), the Arab world, Turkey or other Black Sea countries could be created and connected with each other and the OECD and other Think Tanks in industrialized countries¹⁶.

European politicians but also agents of Development Assistance often maintain that underdevelopment, corruption and lack of knowledge dominate. Consequently, investing money would involve a high risk of misspending and could be seen only out of clemency and helping the poor. This has led to the critique in Africa that Europeans are always "preaching" with reminiscences of colonialism, missionaries and crusades recurring. The position is far more positive towards China, even as its engagement is also realised to be egoistic, including the grabbing of land and resources, neglecting local interests and ecological and social norms. But historical experience with China is different in Africa. At the time of the Cold War, China was part of the bloc of "non-aligned countries" led by Tito, Nasser and Nehru¹⁷, and China always supported independence movements. This alliance was the origin for today's "rising African" initiatives, including the strategy "Africa 2063". The second reason for the more positive attitude towards Chinese investments is that these are large and quick, and are not connected with strings and conditions.

Mutual trust can be developed by declaring the common interest in education, by the exchange of scholars and teachers between Europe and the neighbouring countries, by founding schools with the shared management of native and international organisations or by connecting to existing well-performing integration initiatives (see Box A1).

¹⁶ The OEEC (which had European members only) was initiated by the US as an institution with "European ownership" which could advise European governments on how to open markets and liberalise without direct intervention from the US, willing to support European growth, but not without following principles important to the US.

¹⁷ The new alliance was welcomed on the European side by Bruno Kreisky, Willi Brandt and Olaf Palme.



Africa 2063 and initiatives for change in Arab countries¹⁸, young people and new social groups gathering via the internet and in special cases also physically (e.g. at the Tahrir square in Cairo) signal a new self-confidence of European neighbours. The Arab Spring movements and its successors should be highly welcomed by Europe (Wurm, 2017), since they enable change and reforms and counteract old hierarchies and autocrats. The role of conservative religious leaders (interfering with policy and not legitimised by democratic decision) and the dominance of local monopolies can thus be reduced.

5.1.2 Making SDG goals an integral part of trade and investment agreements

The SDG Goals could provide – aside from being used as a reference for school reforms – a common philosophy and understanding of the goals the neighbourhood countries have, and which European assistance should support. This value system is far from the neoliberal or free-market-only philosophy long propagated by the IMF, but also implicit in trade and investment agreements, in which the unconditional and unrestricted opening of markets dominated and international courts were created for solving disputes on trade and non-trade barriers.

If both industrialised countries and emerging countries accept these goals as guidelines for trade, the reference system changes. Removing social standards or levelling them towards the lower ones should be replaced with upward standardisation and obligations for the investors to follow principles not yet in place in the lower income country. They should be the defining elements of new trade and investment agreements. Specifically the CETA, the EU-Japan or EU-Indonesia agreements, to some degree have goals in this direction. The Cotonou agreement and the agreements of the EU with individual countries (PACs) should be more responsively developed in this direction. The upcoming renewal of the Cotonou agreement is a specific chance to develop a fair, welfare-improving partnership¹⁹.

5.1.3 Coping with change requires an approach with education at its core

The speed of change has generally increased; this holds for both industrialised and developing countries, and even more for the interface between them. It is empirically well-documented that any change and specifically quick changes are a burden to less flexible, unskilled people, and even rather smooth transitions create temporary losers. The role of economic policy should therefore not be to prevent change by import restrictions, but to accompany change in a responsible opening strategy and empower losers to change into the winner's camp. The enablers for transforming education systems described in section 3 are one key to such a strategy. Furthermore, development assistance should not be made conditional on market opening only, but encourage and finance new policy initiatives, social organisations and educational efforts. It should assist neighbours to finance local infrastructure at the capital market (providing low interest rates by guarantees or co-finance) and provide micro-credits. Investment should target connecting local markets, improving access to the internet, the start of new firms and the founding of new social organisations.

5.1.4 Removing obstacles and interferences by richer countries

While industrialised countries often request preconditions from developing countries, Europe should start with the removal of obstacles they have created themselves.

¹⁸ See for example the "Next Einstein Forum" gathering in Kigali 2018

¹⁹ For a set of criteria for assessing and improving trade agreements, see Komnacky (2018).



One of the largest burdens Europe imposes on Africa is the export of subsidised agricultural overproduction to developing countries. In principle, Africa has the resources to produce food for its population, but lacks organisational infrastructure and entrepreneurship, as well as local distribution networks. Direct subsidies for agriculture amount to EUR 40 bn per year; this is the largest expenditure component in the EU budget and it is only marginally cut in the Multiannual Framework 2021-27.

The second burden industrialised countries put on emerging countries is to allow – and clandestinely support by permissive rules – the illegal money export out of developing countries. Capital is then invested in speculation or parked in tax shelters abroad. Repatriation is difficult, even if intended, since then the sources of the money could be detected. Illegal capital export is estimated to be far greater than development assistance.

The development assistance of industrialised countries is well below the ODA target of 0.7%. It often includes weapons exports and still more often the planned assistance of a country is influenced by the trade organisations and lobbies in "donor countries", according to the criterion of whether it has second-order market opening effects for firms in the industrialised country. While this may not always be negative, it requires monitoring by an economic agency like a sister organisation to the OECD in Africa or the Arab countries²⁰.

5.2 Principles of a new strategy

5.2.1 Negotiated conditionality

Unconditional assistance is not optimal, first since assistance may also support corruption and autocracies and reduce the urgency of endogenous reforms. Second, donor countries or the EU spend their taxpayer's money, which requires well-defined objectives and control of the flows. But neither is oppressing European ideas; recipients of the assistance have their own goals, historical priorities, organisation and management. The solution could be to implement conditionality jointly with the recipient countries, ideally in negotiations with governments, civil society and enterprise sectors. A fair process of defining goals together involves admitting that joint learning is essential to overcoming the trade-off between the necessary conditionality, and the unacceptable dominance and superiority of one partner has to be taken into consideration. Cooperation in education systems oriented at Sustainable Development goals, will promote common ground.

5.2.2 The regions have to design their own strategy so as to build "ownership"

Independently of cooperation with and assistance from Europe, each country or region has to develop a vision for its future to direct its own economic policy and define its role in the globalising world. Africa is resource-abundant for most raw materials and would be capable of developing a self-sufficient agricultural sector for its booming population. A nascent industrial sector could prevent errors persisting in industrialised countries due to sunk costs from the start and develop own technologies or at least variants of existing technologies (smart technological diversification). This stimulates innovation in this rising continent, and may improve technologies in industrialised countries working closely with them.

On the intangible side we have addressed the illusion of a fixed, once-and-for-all acquired stock of knowledge. The guiding idea should instead be the provision of a piggy back to be acquired at

²⁰ Dumping waste in developing countries and exporting second-hand clothes from industrialised countries or extremely low quality products from China may add to the list of activities preventing endogenous growth.



school, with the potential to be adapted and reloaded for changing preferences and needs. Investing in existing technologies with high economies of scale and scope and network effects could lead to technology traps. Social innovations should be compatible with heterogeneous populations and non-majority preferences.

5.2.3 Prevent dead-end technologies from being exported or revived

Path dependency of technologies exists in industrialised countries due to the sunk costs of investment in firms and infrastructure, but also the low flexibility of education systems, governance and institutions. It is all-important – also for Europe – that dead-end technologies, even if they look cheap at first, not be implemented in the European neighbourhood countries.

For example houses can be built differently with respect to material, insulation, and the need for heating and cooling. They should be planned more flexibly for changes in the size of families which definitely change during life. Judging affordability by purchasing prices has to be substituted by full costs including operation, repair, and re-selling in case of voluntary and enforced mobility.

Large distances between home and work should be prevented if high growth sets in. This can be supported by city planning, but also using chances of telecommunications and digitisation. Traffic should be planned so as to reduce inefficient structures of consumption and production. Public traffic can be decarbonised, renting could substitute buying, and the possibility of walking or cycling should be planned ex ante.

Recycling and even better life cycle management in products, cascadic use²¹ of material and energy should be planned; functionality should substitute buying materials based on the single prices of, for example, raw materials.

Energy should be produced as de-centrally as possible, networks should allow selling to and buying from the neighbourhood instead of large nets and pipelines.

Large and distant hospitals should be substituted by local stations connected for cases in which specialisation is necessary. Prevention and healthy life style should be more important than care. Digital information, assessments used by the internet and even smart phones become an important aspect of a future-oriented health systems in countries lacking hospitals and quick emergency systems.

The planning of technology use, the calculation of lifetime costs instead of buying, the structure of investment and the consumption of goods needed all increase well-being in industrialised countries. Changes often involve sunk costs and old habits have to be given up. It is increasingly necessary for economies initiating fast growth to go for sustainable solutions.

5.2.4 Pre-empt negative scale effects and status quo dominance from the beginning

Production will triple every ten or twenty years in most European neighbourhood countries²² if the political conflicts can be mitigated. The consequences for sustainability have to be planned ex ante.

²¹ This means energy is first used for its highest user values, then for the next highest, etc., given the laws of entropy (that the user value decreases with each use).

²² Per capita GDP in the ENB is currently 13% of that of EU (4% in Sub Sahara Africa). This implies that growth could be higher than that of China in the past two decades. A growth rate of 7% p.a. implies quadrupling of GDP in 20 years. The European Neighbourhood (ENB) has already been a very dynamic region in the last two decades: GDP increased by 110% since 2000; in the EU28 growth has been less than 30%.



If energy inputs, water and waste increase in parallel to output, the region will use fossil energy and aggravate its own environmental problems, as well as those for Europe and the planet. Preventing this requires foresight, monitoring and international assistance. Poverty reduction and jobs are at any rate the urgent, short-run priority.

In take-off phases (where high growth starts from low per capita levels) social problems are epidemic, since people move from the rural area to cities. Climate refugees, refugees from military conflict areas, and large family sizes aggravate social problems. Slums and rising poverty rates occur before the fruits of growth materialise.

Rapid growth implies that occupations of individuals and production changes quickly. Neither schools, nor legal systems, nor political groups prepare people for constant and rapid change and help the losers to change to the winning side. Protection cannot be guaranteed, while techniques and institutions supporting training and behaviour changes are needed. The illusion of a fixed, once-and-for-all acquired stock of knowledge should be substituted by the idea of a piggy back of capabilities used for ever new opportunities at school.

5.2.5 Biasing technological progress towards focus on resource productivity

Technological progress is necessary and welfare-enhancing, since it allows increasing outputs over inputs. It is currently moving in a non-optimal direction, as it saves more labour in a period of unemployment and fewer resources and energy in a period of severe climate change. This has already been analysed for Europe (Aiginger, 2016), but holds much more strongly for the Southern European neighbourhood, where the population is doubling and desserts are increasing. Therefore, it is all-important that the technical progress in the neighbourhood countries be redirected from labour saving to resource saving²³. Redirecting technological progress should not be seen as undue public interference in a market economy, since the current trend is heavily influenced by public research, non-taxation of emissions and negative externalities. Even if restoring the true costs and correct market incentives were to change the direction of technological progress, societal preferences should also be respected in public policy.

It is highly inefficient if systems developed over the past decades in Europe (or the US) are simply transferred to the European neighbourhood. This would even be the case if preferences and cultural background were identical. Experience of high-income countries should be used and technologies screened, but never without combining them with endogenous knowledge,

This difference will probably continue due to the development of the population and the gap in per capita GDP today.

Population in the ENB is forecasted to rise by 77% between 2017 and 2050; it is more than doubling in Sub-Saharan Africa, and rising by 56% in Northern Africa and the Middle East. In the EU, total population will decrease slightly, working age population more strongly. In Central and Eastern Europe population will decrease by 15%, working age population by one third. The catching up potential of the ENB is huge: on average, GDP per capita is today 13% of that in the EU, ranging from 4% in Sub-Saharan Africa to 45% in the Black Sea Region.

Annual GDP growth is predicted for the ENB to lie around 5%, compared to 1.5%-2.0% for Europe. Together with its neighbours, Europe's share in world output would still be about 28% in 2050. This would be on par with China, and twice as large as the US together with its neighbours (Aiginger 2017A, based on OECD Baseline Projection).

²³ In the European neighbourhood, in which population is increasing by 3% per year and will nearly double up to 2050, labour saving technical progress is less a boon than a problem. If labour productivity increases by 3%, economic growth has to be that much higher than population growth so as to stabilise or further employ the population. On the other hand, energy, water, and resource saving technical progress is ever more welcome since the share of the arable part of Africa is declining.



traditionally developed under a different climate and history. The worst outcome would be if the dead-end technologies in industrialised countries, past errors and path dependency are transferred from Europe to its neighbourhood countries.

5.2.6 Smart diversification in goals, technology and policy values

It is all-important that the strategies of the neighbourhood regions make use of existing technologies and knowledge in higher income regions, but do not try just to copy previous European or US efforts and technology.

Africa has the resources to produce enough food, but this requires new approaches with innovative technologies, social structures, education and infrastructure established between African countries, not only with other continents.

It can produce energy and increase water supply (and reduce water use) through new technologies, yet the future probably does not lie in large dams, big plants and long transport, rather in de-centrally produced technologies. These are partly available in labour and partly to be developed by international assistance, start-ups and finance.

The policy should not be oppressed top-down by intentional organisations and development assistance, but based on African intentions and civic support. The policy papers by the African Union (see African Union Commission, 2015) provide vivid proof that "Africa is rising," even if this is not always visible in all countries and regions. Conflicts, autocratic regimes, vested interests and corruption prevent progress. And speed matters, given the rate of population growth of 2-3% per year and its predicted doubling in Africa over the next decades from 1 to 2 billion.



Box 5: Grassroots experiments calling for replication

Initiative	Focus/Aim	Steering countries	Receiv./implem. ctrs.	Financing/ Support
Bill and Melinda Gates Foundation	Priorities: Global Health Division, Global Development Division, U.S. Program, Global Policy and Advocacy Division.	Headquarters in Seattle; offices in Washington, D.C., New Delhi, India, Beijing, China, London.	Worldwide	Bill and Melinda Gates Foundation; contributions from Warren Buffet
Peace corps	Volunteer projects in agric., comm. economic, educ., environ-ment, health, youth develop.	US	World wide	Donations
Menschen für Menschen	The aim is to help regions and free them from poverty.	National organisations in AT, DE, BE	Project areas in Ethiopia cover app. 57,000 km ² .	Donations
UNICEF	Protects children from hunger, violence and exploitation; ensures health care, access to drinking water and school.	Headquarters in New York; eight regional offices and 34 national committees	World wide	Voluntary contributions
Helping Hands for Africa	The aim is to help orphans and to provide a perspective for street children in Africa.	Headquarters in Frankfurt.	3 proj. : Osubi (Nigeria), Batoke (Kamerun) , Nungua (Ghana)	Supported by donations and sponsors.
SOS children's villages	Accomod. with SOS mothers for children who have lost parental care, or who risk losing it.	Over a hundred national associations across the world	The organization manages 546 villages worldwide.	Donations, governm. subsidies, institutional funding.
Erasmus Mundus – Al Idrisi II	Exch. between Europe and North Africa. Scholarships for undergrad. and master students, doctoral candidates, post-doctoral fellows and staff.	Scholarship scheme between EU countries and Algeria, Egypt, Libya, Morocco and Tunisia		Co-financed by the European Commission in the framework of the Erasmus Mundus programme
Rojava-Democracy in the Middle East	Political syst. based on democr. confederalism; self-org. comm-unes, neighbourhood councils or village community councils.	Model developed in Rojava. Cooperation between Kurds and North Syria.		International help is limited to private social and political initiatives.
Jordan Compact: Special econ. zones (SEZs)	Jobs for refugees while boosting an ailing economy, by offer. bus. tax concessions, perks on the cond. they employ Syrian work.	European Union	Jordan	\$300 million World Bank loan; companies create jobs
Yumbe Experiment	Refugees in North of Uganda are free to move, have the right to work and should become independent through agriculture.	Uganda		The refugee camps are supp. by aid organiz. There are more than 30 in Yumbe alone.
Friedensoasen (oasis of peace) proposal by Bramhas and Stanzel	Reforestation of desert areas by refugees. Protec. by military, self-determined work and human rights comb. with labour and ecology.	European project; Austria should start, other countries could follow	Stable regions in conflict ridden African and Middle East countries.	Cooperation with Austria looking for sponsors, management capacities
Austrian University of Cairo	Cooperation in research and teaching.	Egypt, Austria	Egypt	Egypt govern-ment/University of Linz, Bruno Buchberger



5.2.7 Regional sunset protection monitored by an international organisation

Protection against imported technologies and knowledge prevents innovation, but copying them without adaption is also suboptimal. Endogenous development is often costly and slow, and shelters can be misused for protectionism and the interests of existing elites and monopolies; however, without some shelter and guaranteed space for experimentation and innovation progress will be slow²⁴. China, Korea and other successful East Asian cultures have used such a mix, with a strong role of governments, but also using foreign technologies and knowledge in sheltered institutions or special zones. If a country engages in temporary protection, this should be reported to international organisations and brought in line with trade contracts, and protectionism should end automatically if there is no consensus for its renewal (sunset clauses).

5.2.8 Shift from fixed knowledge and overspecialization to flexible capabilities

Today, learning in schools is delegated to teachers, other insiders and education experts. This shapes the curricula, educational tracks and institutions. Teaching in the school environment is restricted to specialists who decide early in life to pursue this career, never switch between schools and industries and never combine teaching and working in the "real economy" as two parts of an interesting occupation. A very small part of the staff in public schools is international, even in schools with a high share of pupils with a migration background.

The learning content is often rather fixed, and it often places a heavy emphasis on traditional content. Results are certified and this is intended to increase incomes and employment. Learning poems by heart is more important in European curricula than solving problems or understanding cultures. Specialisation in very narrow fields is no longer optimal²⁵. But in today's environment – not only for the European Neighbourhood Countries – the education systems have to prepare for change, provide capabilities and lifelong learning, and apply existing knowledge with the certainty that this will change over time (OECD, 2017, p. 12; Bock-Schappelwein, 2018)²⁶.

5.3 Changes in education systems are necessary to implement the partnership

Education systems have to anticipate the quick speed of change in technologies by shifting from fixed knowledge to capabilities for new occupations, problem and conflict solving and lifetime management. Curricula should not be fixed for decades and reflect European learning content of the past. Learning techniques and content should differ in a heterogeneous and technically changing world. Education should include the importance of changing habits so as to foster better

²⁴ An exceptional example for an initiative enabled by a special governance is the Silicon Savanna in Nairobi

²⁵ Universities are even more specialised and articles in academic journals determine career prospects, where publishing in top-ranked journals clearly discriminates against broad, interdisciplinary articles with relevance to well-being.

²⁶ These necessary characteristics of a future-oriented education system have a parallel in the social system. It cannot guarantee that any correlated risk (not caused by an individual characteristic but by a profession, a product category or a technology) will be compensated by society, and each existing job will be guaranteed. A future oriented system should invest in capabilities to change and assist to adapt or retrain in case of unexpected risks. Social protection is at any rate substituted by social investment plus a shelter in case of unexpected and individually caused problems. The Scandinavian countries have provided models for this change in the nineties (sometimes called flexicurity). Ideas of proactive social policy should be used in the creation of nascent social systems of the Europe neighbourhood. These often do not yet exist today and need a lot of investment from the start, they have to provide capabilities and support investment in change instead of promising fixed jobs.



health and less resource use. If Europe or international organisations finance the transfer of knowledge, they should definitely ask for an active participation and evaluation of the assistance by the recipient countries. This may initially look costly and increase uncertainty, but it also helps to correct failures in the systems of the industrialised world. This could also improve well-being in Europe.

6. FINANCING THE NEW ENGAGEMENT AND WHAT HAS BEEN STARTED

We propose spending an *additional annual amount of EUR 100 bn* for an education-based partnership strategy. Since the current efforts of the EU are about EUR 10-15 bn, investment has to rise by the factor of 7 or 8²⁷.

The necessity of such large investment is confirmed by estimates that the fulfilment of the SDG goals for Africa will need between USD 600 billion and USD 1.2 trillion per year (UNCTAD, 2016). And that a sum of additionally EUR 100 bn is not completely out of reach can be shown by reminding that the counterproductive subsidies of the EU member countries for fossil energy are about 100 bn. Furthermore, the EU spends about EUR 40 bn on direct subsidies for agriculture, increasing the export of surplus production to Africa (preventing own production and development of more efficient own structures). The expenditures of member countries on military systems are far above this sum (and to a large part targeted at threats from close neighbours, many of them EU countries) and can be cut dramatically. European arms exports amount to EUR 200 bn and are often treated very generously by fiscal systems.

In principle, it could also be possible to raise new taxes (on financial transactions, kerosene, ships, virtual firms), but these tax sources should primarily be used to cut taxes on labour, since the overall tax burden is already high in Europe (and expenditures relative to GDP amount to some 50% in many member countries).

Remittances are estimated to be USD 49 bn for the Middle East and North Africa and USD 37 bn for Sub-Saharan Africa (EUR 86 bn together). These figures are high compared to development assistance (and about 2% of the GDP of the receiving regions), but are low relative to world-wide remittances (estimated to exceed EUR 500 bn). They could be increased by transparency, lowering corruption and creating special investment funds (co-)managed by expatriates. Capital flight from Sub-Saharan Africa alone is estimated to amount to EUR 50 bn (<https://qz.com/975528/africa-is-losing-billions-annually-to-illegal-capital-flight/>)²⁸.

²⁷ These proposals as well as an estimate of current effort have been made in Aiginger – Handler (2017b). Overall financing of external activities from the EU budget and the European Development Fund (EDF) is reported to be EUR 82 bn for the 2014-2020 period (12 bn per year). Funding flows through various instruments which are organised according to thematic and geographical topics. Spending mobilised by the External Financing Instrument (EFI) amounts to EUR 17.4 bn for 2014-2020, composed of EUR 15.4 bn via the European Neighbourhood Instrument (ENI) and EUR 2.0 bn via the Emergency Trust Fund (EUTF), plus some money for the migration compact.

²⁸ Another estimate is provided by Ndikumana et al. (2015), indicating that 39 African countries lost 511 billion US dollars through capital flight.



Table 4: Aid, military expenditures, arms trade and personal remittances

	Aid (ODA)		Military expenditures		Arms		Personal remittances,	
	Total Education				Exports	Imports	received	
	2016		2017		2016		2016	
	bn USD		bn USD	% of GDP	bn USD		bn USD	% of GDP
World	176.6	12.18	1,693.0	-	31.1	32.2	537.5	0.7
USA	34.4	1.51	597.2	3.1	10.3	0.5	-	-
China	-	-	228.2	0.9	2.2	1.0	-	-
Russia	1.3	0.01	-	-	-	-	-	-
EU	17.1	0.99	257.3	1.7	8.6	2.5	-	-
Middle East & North Africa	-	-	19.1	-	-	0.7	49.0	1.8
Sub-Saharan Africa	-	-	19.6	-	-	13.8	37.3	2.5

Source: World Bank (World Development Indicators), SIPRI (IMPORTER/EXPORTER TIV TABLES).

Compared to all these numbers, the current engagement – of EUR 10-15 bn for external financing instruments as well as the official development assistance by the EU is low (including bilateral ODA from Member States, about EUR 20 bn per annum²⁹. Greenfield investment in Africa by EU members is estimated to be USD 12 bn in 2016. That of the USA amounted to USD 3 bn, while China invested USD 36 bn³⁰.

One option for raising the proposed sum with minimal costs for the European taxpayer is to enlarge the European Fund for Sustainable Development (EFSD) by the European Investment Bank, which was started in September 2017³¹. Secondly, green bonds for investment in sustainability, education projects and local initiatives could be created, including an African/Middle East Development Bond³².

Furthermore, the money from the redemptions to the Marshall Plan could be used for an education-based partnership strategy with European neighbours. It is now used in member countries for various purposes.

²⁹ The Africa-EU Partnership, see <http://www.africa-eu-partnership.org/en/about-us/financing-partnership>.

³⁰ UNCTAD (2016). Expenditures by Europe and the US in Africa in the year 2016 fell relative to 2015, while those of China rose and overcompensated the decline.

³¹ The Juncker Investment Plan for Europe combined EUR 5 bn in assets provided by the European Investment Bank with EUR 16 bn of guarantees to trigger more than EUR 100 bn per year in economic expenditures. Inspired by the reported success of the Juncker Plan, the European Fund for Sustainable Development (EFSD) was launched in September 2017. It goes in the direction of our proposal and should be initiated quickly and intensively in order to attract European investors, but also governments, civil society, youth and NGOs in partnership countries. It intends to boost private and public investment in partner countries. Although such investments might be seen as riskier and could therefore trigger lower crowding-in of investments, the expected rates of returns could be higher such that one can expect a similar multiplier effect: with an input of EUR 4.1 bn from the EU budget and the EDF, investments of EUR 44 bn are expected. If Member States match the EU contribution, the overall result could also be doubled to EUR 88 bn (European Commission, 2016).

³² A big slice of the money needed could be provided by new capital market instruments, e.g. so-called development impact bonds (DIBs) that would enable private and institutional investors to commit their available funds to the neighbouring regions of Europe. As an existing example, we can take the EIB's climate awareness bonds, which are a form of green bond. The EIB has raised over EUR 11 bn from green bonds, with EUR 3.8 bn raised in 2016 alone. The same could be done with an African/Middle East Development Bond, where at least EUR 1 bn per year is a realistic dimension. A common European bond for Africa investing in education and sustainability should be easier to implement and accept between Member States than Eurobonds.



According to the recent proposal for the Multiannual Financial Framework for 2021-2027, the existing EU external funding instruments will be merged into a "single external funding" instrument. Expenditures for this instrument are planned to increase by about one quarter as compared to the sum of the categories in the current period, but this is still much less than the investments proposed in this study. And the critique is raised that a single fund may be used for different unspecified priorities, where an attractive short-run activity (closing borders, fighting migration) might suppress education-based projects with higher social welfare effects for Europe as well as its Neighbourhood³³.

To summarise, the proposed EUR 100 bn could be raised by (i) cutting subsidies (from member countries or from the EU budget) for agriculture and fossil energy; expenditures can be shifted in existing EU sources (direct budget, EIB); (ii) the newly established external investment fund, or newly created Responsible Funds; (iii) an external investment fund initiated by the EU; (iv) crowding in international finance. Additionally, money parked in old ERP facilities could be used and Europe could increase its efforts to prevent capital flight to Europe or tax havens. Increasing total expenditures or taxes is not a good option given the high overall tax rate in Europe; shifting tax structures would be important and could reduce expenditures for unemployment and climate damage.

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7. SUMMARY

Europe in the globalized world of 2050

Internal challenges and external chances

Europe needs internal reforms in strategy and governance so as to increase its dynamics, reduce unemployment and inequality, and grasp the chances of new technologies and decarbonisation. This will help the EU and the governments of the Member States to reconnect with citizens, to fight populism and internal dissent, and support the extension of the EU to the Western Balkan countries.

Equally important are partnerships with non-members in the South and the East of Europe. This is up to now broadly neglected by member states and reluctantly started by European institutions. In our study, the European Neighbourhood is defined as North Africa, the Middle East, the Black Sea and successor states of the Soviet Union. In a wider sense it also includes Sub-Saharan Africa.

³³ For an optimistic assessment see Stefan Zotti (Director of the OeAD, the Austrian Agency responsible for implementation of European education programmes), who ensures that Erasmus+ is one of the big winners of the Multinational Framework for 2021-2027 and see also APPEAR (<https://appear.at/en/>). Zotti stresses the importance of capacity building in human capital, infrastructure and knowledge transfer as the mean goals of Appear and other external initiatives of the EU.



Paying attention to the regions outside of Europe is necessary in a rapidly changing world. The future role of the US is uncertain and China is determined to take the lead in investment and finance, but also increasingly in international institutions and new technologies. Without neighbours, the share of Europe – whether defined as the EU or as a geographical region – is declining towards 5% of the world population and 10% of output; such a small region cannot shape globalisation and will be less represented in international organisations and meetings. The European Neighbourhood on the other hand is a very dynamic region, with the potential of growth rates higher than in China, India or South America. Europe must not miss the chance to actively join forces with its neighbourhood.

Trends and predictions

GDP in the European Neighbourhood (ENB) has more than doubled since 2000. Annual growth rates between 5% and 10% will continue in the future due to the booming population and catching up from currently 13% of European GDP per capita. These dynamics could boost European exports and make "Wider Europe" a very dynamic region. The GDP of the current EU28 will fall below 15%, and together with the ENB it is predicted to be about 30% in 2050, on par with China and twice as large as the US plus neighbours. The doubling of the young generation in the ENB contrasts the ageing of Europe, and specifically the development in Central and Eastern Europe, where the population is declining by about 10% and the working age population by about one third.

Heterogeneity of the ENB

The economic heterogeneity extends to political systems, governance, religion and preferences. The European Neighbourhood is full of internal conflicts. Some countries are looking for democratisation and new strategies, others are returning to old solutions and even territorial size. On the one hand a new generation is connected via social media and open to new ideas, technologies and lifestyles. On the other hand old schisms persist, the past is glorified, and there are open or clandestine attempts to restore regional hegemonial power. But in general a trend of new confidence is arising, and especially Africa is determined to find its own solutions for pressing problems, even if this will not work without new technologies, finance and external assistance.

Best and worst scenarios for the European Neighbourhood

If the ENB is stabilised and growth rates between 5% and 10% materialise, poverty will decline, and jobs will be created for the young generation. Migration can slow down and become circular. It will be more determined by demand and an individual search for new experiences than by problems at home. Autocratic regimes, military conflicts and terrorism will lose their root causes.

If the European Neighbourhood is saddled with political conflicts, destabilisation and ecological degradation, no jobs will be available for the young population. Money will be lacking for new infrastructure, schools, renewable energy and water-saving technologies, and emigration will boom.

The need for governance reforms in Europe

The unification of Europe is a long-run success story. It started with 6 countries and the EU now has 28 members with about 10 more countries willing to join. Economic dynamics, however, are low, and especially since the Financial Crisis unemployment and inequality have increased. Europe has not closed its distance to the technology frontier, and regions and member countries are disappointed about the speed of catching up. They call for protection and national solutions even if problems are global. But the EU is the largest region as measured by GDP, enjoys high life expectancy and the lack of military conflicts among members. Europe excels in the combination of different societal goals as measured by the Sustainable Development Agenda.



But dissent has come up between the North and South, as well as the Eastern and Western blocs. A future-oriented strategy is being deferred, and the optimal combination of common goals and rules with which to achieve them and their decentral implementation are not being tested. If Europe can reform it will become more dynamic, decreasing unemployment and inequality, and it could become a leader in decarbonisation, able to shape a "responsible globalisation". If not, it will lose members and the support of citizens. To contain destabilising forces from abroad the EU would also need to re-establish border controls between member countries and invest in military forces at its external borders.

Synergies between reforms and partnerships

Internal reforms and external partnerships could bolster each other. A stable and dynamic neighbourhood would boost growth and employment, and integrate migrants and refugees. This opens new chances for technological leadership, reducing political opposition to reforms. But stabilising the Neighbourhood and realising the chances for a huge and dynamic market much closer than China or India requires investment and active engagement at the other side of Mediterranean Sea (which used to be called "mare nostrum" by Europeans) or the Black Sea. Initiatives for partnerships have been started, but not with the urgency, means and priority needed.

Europe's unique strength: education-based partnership

The message of this study is that Europe cannot excel with huge investments in ports and silk roads as China does, nor with the military power offered by the US (and complemented by Russia, Turkey and Iran to divert from domestic problems). Europe's unique offer can be improving education and knowledge, as well as offering experience in conflict management, non-governmental organisations and institutions. All these activities can be summarised under the term of intangible investment, and they belong to education systems in the wider sense.

Known benefits redirected by the compass of sustainability

The benefits of education for individuals are higher income, better jobs, health, longer lives and critical thinking. For society they encompass conflict solution, less crime, increased quality competitiveness, and innovation potential. In the long run, education also creates fiscal benefits since it leads to higher tax revenues and reduces expenditures on security and hospitals. Since educational benefits are higher for society and since important decisions are to be made early in life, governments shape the educational systems, set up schools and try to provide equal starting chances and gender equality.

What this report adds is that education systems have to be better connected to the future goals of a society, providing capabilities and choices. It is more important that real-life problem and conflict solving be learned at schools and universities, rather than dead-end technologies and unhealthy nourishment and habits be prolonged. Curricula, teacher training and tests should be aligned to the Sustainable Development Goals, and especially the SDG 4 goal ("quality education and lifelong learning opportunities"). The agenda 2030 includes indicators for operationalisation from early childhood enrolment to vocational and technical training. This new compass will end a given separation of learning from life, bringing educational systems in line with societal goals and well-being and making them fit for ever new challenges.



The agenda for an active partnership policy

Improving educational systems in Europe

Europe has to better monitor the efficiency and outcomes in the education system. It has to switch from a strategy for a medium-income region to that of a high-income region needing highest skills and the lead in radical new technologies including digitisation and decarbonisation. Overspecialisation and narrow job profiles have to be abandoned, since they prevent the rapid appropriation of new technologies. But the education system also has to cope with the diversity of its members and regions, close the differences between genders and internal cultures, and encourage experiments and differences in the models of the EU members. Europe has to improve the integration of migrants and refugees, incentivising them to go to regions with a strong decline in labour force and away from congested metropolitan areas. Europe has to become more attractive for students and highly qualified migrants from other continents. The education system should abandon models of learning at the beginning of life only, from fixed knowledge for given occupations to abilities to adapt and change, from employment-oriented curricula to learning about life styles, work-life balances and obesity prevention. The education system should cope with the problems of digital divide and ageing, and provide capabilities for change. Dissent over democratic values and processes has to be discussed, along with the advantages of heterogeneity. Citizens, stakeholders, scholars and teachers should experience the educational system in the countries where they were born, but also in other countries.

Barriers and enablers of reforms in ENB countries

Problems in the European neighbourhood deviate to some extent from those in the EU. Access to schools is sometimes lacking, literacy is not provided for all, infrastructure and learning tools are missing, teachers are barely motivated or trained. Chances of kids depend, even more than in industrialised countries on location and income of the parents. Children often arrive unprepared at schools or are absent for longer periods. Inputs provided – books and computers- are often not used. School management is often detached from learning. Political actors and elites feel challenged by educated people, who may call for less inequality and ending corruption as in the Arab Spring.

But some enablers of better education the neighbourhood countries share. Educational input can result in widely differing outcomes. Literacy and mathematics may be literal or foundational. Reforms should focus on disadvantaged and vulnerable groups; the latter includes refugees, ethnic groups, stateless and forcible displaced children. Learning is no one- stop issue, its goal should be to improve wellbeing and not just income and jobs. Problem and conflict solving is more important than fixed curricula. The future will be different from today, broad knowledge and skills and empowering to change is important.

Europe can assist the neighbouring countries in upgrading education, but it has to accept that the problems may be more basic. Learning outcomes differ from access and attendance. School projects should be managed in partnerships; an interchange of scholars, teachers and researchers might help. And during this process Europe will learn about improvements also to be applied in Europe. It is encouraging that some countries like South Korea, Vietnam, but also Liberia, New Guinea and Togo managed progress within a relatively short time

Principles of a new partnership on a level playing field

Cooperation requires trust. This is not a given automatically between Europe and its neighbours due to experiences in history. Distrust is reinforced through asymmetrical trade and investment agreements or development aid, which is often targeted at the opening of a market to support the aid-giver's economy. Proposals to create trust include new partnership agreements connecting



trade and investment to SDGs, a discussion of joint interests in globalisation and the elimination of obstacles Europe imposes or tolerates, from large subsidies for agricultural surplus production to enabling illegal capital exports to safe tax havens and dumping waste or cheap second-hand products and dirty products in neighbouring countries

Negotiated conditionality: Conditions for European financial investments should not be imposed by the "donor" top-down, thus reminding of dependency and imperialist attitudes. However, assistance also cannot be without conditions and control. The best approach would be for the neighbouring countries to develop an own strategy and then negotiate with the EU or its member countries, international and civil organisations about how the strategy can be supported. International organisations with a dominant ownership of the neighbouring countries must then monitor progress to signal failures and propose additions and changes. This role was taken successfully by the OEEC in Europe in the European recovery programs after WWII.

Preventing path dependency: The life time of dead-end technologies should not be prolonged by offering them to European neighbours. Renewable energy should be produced in an innovative and decentralised way. Thus, the neighbourhood could become a lab for new, clean technologies, rather than a region to extend the lifetimes of old ones using fossil energy and cheap raw materials.

Decoupling resource use from growth: Doubling population and quadrupling production should be designed by limiting negative scale effects ex ante and by minimising later repair costs. The dominance of the status quo should be broken, with new products, precautionary principles and healthy habits learned so as to increase well-being without the negative side effects often connected to growth of incomes in industrialised countries.

Redirecting technological progress: Productivity increases should not primarily come from labour saving, but rather from saving energy, water and resources through taxes on emissions and reducing subsidies in fossil energy. A technology policy enforcing innovations and start-ups in clean technology and an education system supporting sustainability and the limits of the planet from kindergarten to universities could be designed by Europe and its partners.

Smart diversification: Technology import is important for catching up quickly, but technologies can and have to be adapted or improved in low-income countries. Using state-of-the-art technologies but adapting these to own priorities and new goals will enforce competitiveness better than imitating a known technology under different conditions.

Sunset protection: Some transitory protection will be needed to develop technologies as long as production costs have not reached their minimum. It should however be phased out automatically and observed by an international watchdog with neighbouring countries at the driver seat and the OECD, the World Bank or the IMF as controller.

Capabilities for change: Europe should invest in educational systems but prevent enforcing fixed curricula and narrow specialisations, as dominate in its own systems. Problem solving, conflict resolution, capabilities for ever new challenges, piggy backs and lifelong empowering "rucksacks" and techniques for increased well-being should substitute prefixed knowledge and education goals.

Towards implementation

The investment of an additional EUR 100 bn is necessary

The new partnership policy is estimated to require additional investments which may be five or ten times the current efforts of the European Neighbourhood Policy. This amount should not be qualified as lost spending for Europeans, since the economic gains from a large and dynamic market, from positive spillovers of new technologies and better skills, the reduced burden of



conflicts and refugees have to be balanced against the costs. Preventing illegal capital exports, stopping subsidies for large agricultural units in Europe, enforcing remittances, and creating sustainable investment opportunities will minimise costs for the European taxpayer. A fund for sustainability and new technologies guaranteed by Europe is an investment opportunity welcomed by international investors. Extending the EFSI and increasing development assistance to the goals set by existing commitments and funds for responsible investments already planned will reduce costs in the direction of EUR 5 bn to EUR 15 bn per annum, which is really small as compared to current subsidies of member countries for fossil energy (about EUR 100 bn), expenditures in the EU budget of EUR 40 bn for "direct payments" subsidising agricultural surplus production, and uncoordinated expenditures for 28 military systems, focussing on internal dangers which no longer exist.

Progress is on track but not fast enough

The relation between Europe and its external neighbourhood has been on the agenda of the European Commission in its Neighbourhood strategy, and the education component is addressed in the Erasmus programs. The money and number of scholars and teachers involved is far too small. The Official Development Assistance is still far below targets. The existing EU external funding instruments are proposed to merge in the Multiannual Financial Framework for 2021-2027. Expenditures for this "single external funding" are planned to increase, but still much lower than the investments proposed in this study. The Erasmus + program is expected to be a winner of the new MFF. But still expenditures of the EU and its member countries on subsidies (for agriculture respectively for fossil energy), weapons exports and money lost by illegal capital exports are ten times higher. It is also not decided whether the "single external instrument" will be used for defensive measured or for investment in the future dynamics of the European Neighbourhood.

How to make it operational

Implementation needs first of all a consensus of Europe and its neighbours; that cooperation decides about future wellbeing and peace, the ability to reduce poverty and inequality and to fight climate change. The operationalisation of the strategy has to include governments, regional organizations like the EU and the African Union, civil organizations, experts and teachers and especially young people and new actors and expatriates. The heterogeneity of Europe and its neighbour countries has to be seen as chance and not as burden. Schools have to provide broad and business-oriented knowledge and skills, capabilities for change, and reorient at the goals for Sustainability Development. Experiments are necessary and best price is to be analysed and copied.

The message in a nutshell

Europe needs a double strategy of internal reforms combined with new partnerships with the neighbourhood in the East and to the South. Europe's advantages lie in education, conflict resolution, digitalisation and rule of law. European engagement has to focus on ending poverty, offering technologies to create jobs and promote decarbonisation, but also to fight corruption and illegal capital export. Neither military interventions nor large investment in projects like "silk roads," pipelines and dams constitute European strengths.

Partnerships with neighbours will decide whether Europe is surrounded by a "ring of friends" or a "ring of fire," and whether its global importance will shrink or be able to shape a "responsible" and welfare-enhancing globalisation. Europe's best chance is education and other investments in intangibles like conflict solving and rules of law. Improving education and innovation systems in Europe and within European governance could temper nationalistic "my country first" ideas, preventing new hegemonies and autocratic regimes from arising in Europe's South and East.



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REFERENCES

- African Union Commission, Agenda2063, The Africa we want, Ethiopia, 2015.
- Aghion, P., Dewatripont, M., Hoxby, C., Mas-Colell, A., Sapir, A. (2010), "The governance and performance of universities: evidence from Europe and the US", *Economic Policy*, 25(61), pp. 7-59.
- Ahmad, O. B. (2005), "Managing medical migration from poor countries", *British Medical Journal*, 331(7507).
- Aiginger, K., Handler, H. (2017a), "Europe needs a partnership policy with the South and the East", *Euractiv*, 28.11.2017.
- Aiginger, K., Handler, H. (2017b), "European Partnership Policy: Fostering dynamics and fighting root causes of flight", *Policy Crossover Center: Vienna - Europe, Policy Brief*, (3).
- Aiginger, K. (2017a), "This Can Still Be Europe's Century", *International Journal of Business and Economic Affairs*, 2(3), pp. 173-182.
- Aiginger, K. (2017b), "How a strong Europe could create more national scope of action", *Policy Crossover Center: Vienna - Europe, Flash Paper*, (1).
- Aiginger, K. (2017c), "Die Globalisierung verantwortungsbewusst und europäisch gestalten", *Policy Crossover Center: Vienna - Europe, Policy Brief*, (2).
- Aiginger, K. (2017d), "Europa zwischen Globalisierung und Renationalisierung", *Policy Crossover Center: Vienna - Europe, Working Paper*, (2).
- Aiginger, K. (2016), *New Dynamics for Europe: Reaping the Benefits of Socio-ecological Transition*, WWWforEurope Executive Summary, Vienna, Brussels (<http://Synthesis-Summary.foreurope.eu>).
- Aiginger, K., Bärenthaler-Sieber, S., Vogel, J. (2013), *Competitiveness under New Perspectives*, WWWforEurope Working Paper, 44.
- Antal, M., van den Bergh, J. (2016), "Green growth and climate change: Conceptual and empirical considerations", *Climate Policy*, 16(2), pp. 1-13.
- APPEAR (2018), *Austrian Partnership Programme in Higher Education and Research for Development*, <https://appear.at/en/>.
- Bodomo, A. (2017), *The globalization of foreign investment in Africa*, Emerald Points.
- Bock-Schappelwein, J. (2018), "Social cohesion needs sufficient individual basic skills", mimeo.
- Brest, P., Gilson, R.J., Wolfson, M.A. (2018), "How Investors Can (and Can't) Create Social Value", *ECGI Working Paper Series in Law*, (394/2018).
- Bruckner, G. (2018), "Austrian School in Shkodra, Albania, as a Best Practice Example for European Integration in Education", *Policy Crossover Center: Vienna - Europe, Flash Paper*, (3).



- Docquier, F., Lohest, O., Marfouk, A. (2007), "Brain Drain in Developing Countries", The World Bank Economic Review, 21(2), pp. 193-218.
- Easterly, W., Nyarko, Y. (2008), *Is the brain drain good for Africa?*, New York University.
- European Commission (2016), African Union: THE AFRICA EU STRATEGIC PARTNERSHIP, http://www.africa-eu-partnership.org/sites/default/files/documents/eas2007_joint_strategy_en.pdf.
- Galeano, M. (2018), "Migration and Remittances: Hindering the Development of Lesser Developed Nations?", Master thesis, Charles University, Faculty of Social Sciences, Institute of Political Studies.
- Gill, I., Raiser, M. (2012), *Golden growth: restoring the lustre of the European economic model (Vol. 2)*, Europe and Central Asia Studies, Washington DC; World Bank, <http://documents.worldbank.org/curated/en/539371468036253854/Main-report>.
- Handler, H. (2018), "Economic Links between Education and Migration: an Overview", Policy Crossover Center: Vienna - Europe, Flash Paper, (4).
- Hammler, K. (2018), "It's the Implementation, Stupid! Evidence on Improving Learning Outcomes from the Columbian Escuela Nueva School Model", Policy Crossover Center: Vienna – Europe, Policy Brief, (1).
- Hemerijck, A. C., Vandenbroucke, F. (2012), "Social investment and the Euro crisis: the necessity of a unifying social policy concept", *Intereconomics*, 47(4), pp. 200-229.
- IMF (2015), *Global Financial Integrity (2015): Illicit Financial Flows from Developing Countries: 2004-2013*, Washington, <http://www.gfintegrity.org/issues/data-by-country/>.
- IMF (2016), *World Economic Outlook: Subdued Demand: Symptoms and Remedies*, Washington, October.
- Kirigia, J.M., Gbary, A.R., Muthuri, L.K., Nyoni, J., Seddoh, A. (2006), "The cost of health professionals' brain drain in Kenya", *BMC health services research*, 6(1).
- Komnacky, M. (2018), *Handelsabkommen der EU: Race to the bottom, Unterstützung von Klimazielen*, Bachelor Thesis, WU-Wien.
- Kratena, K., Sommer, M. (2014), "Policy implications of resource constraints on the European economy", *WWWforEurope Policy Briefs*, (6).
- Krueger, D., Kumar, K.B. (2004), "Skill specific rather than general education: A reason for US Europe Growth differences", *Journal of Economic Growth*, 9(2), pp. 167-207
- Langthaler, M., Hornoff, S. (2008), "Brain drain und seine Auswirkungen auf Entwicklungsländer", ÖFSE Working Paper, Austrian Foundation for Development Research (ÖFSE), Vienna, (20).
- Leoni, T. (2015), "Welfare State Adjustments to new Social Goals, A review focusing on the Social Investment Approach", *WWWforEurope Working Paper*, (89).
- Lungu, I. (2017), "Neocolonialism or Balanced Partnership?", Policy Crossover Center: Vienna – Europe, Flash Paper, (10).
- Lutz, W., Kebede, E. (2018), "Education and Health: Redrawing the Preston Curve: Education and Health", in *Population and Development Review*.
- Moyo, D. (2010), *Dead Aid: Why aid is not working and how there is another way for Africa*, Penguin books.
- Muttarak, R., Lutz, W. (2014), "Is Education a Key to Reducing Vulnerability to Natural Disasters and hence Unavoidable Climate Change?", *Ecology and society*, 19(1), pp. 1-8.



- Ndikumana, L., Boyce, J. K. (2015), "Strategies fo" addressing capital flight", in Ajayi, S. I., Ndikumana L. (eds.), Capital Flight from Africa: Causes, Effects and Policy Issues, Oxford University Press.
- OECD (2016), Skills Matter, Paris.
- OECD (2017), Education at a Glance, OECD Indicators, Paris, <http://dx.doi.org/10.1787/eag-2017-en>.
- OECD-UNDESA (2013), World Migration in Figures, <http://documents.worldbank.org/curated/en/539371468036253854/Main-report>.
- Oesingmann, K. (2016), "ifo Migrationsmonitor: Die Zuwanderung von ausländischen Studierenden nach Deutschland–ein wichtiger Faktor für die Gewinnung von Fachkräften", ifo Schnelldienst, 69(20), pp. 51-55.
- Özden, Ç., Phillips, D. (2015), "What really is brain drain? Location of birth, education and migration dynamics of African doctors", KNOMAD Working Paper, (4).
- Sachs, J. (2008), "Europe as a soft power", Financial Times, 19 August.
- Samet, K. (2013), "Circular migration between the North and the South: Effects on the source Southern economies", Procedia - Social and Behavioral Sciences, 93, pp. 225 - 242.
- Schaffartzik, A., Mayer, A., Gingrich, S., Eisenmenger, N., Loy, C., Krausmann, F. (2014), "The global metabolic transition: Regional patterns and trends of global material flows, 1950-2010", Global Environmental Change, 26, pp. 87-97.
- Schmid, C. (2018), Bildung als Turbo für eine Qualitätsführerschaft Europas in der Globalisierung", Bachelor Thesis, WU-Wien.
- Spaeth, A. (2018), "Migration und Flucht aus Afrika südlich der Sahara. Historische Ursachen, aktuelle Auswirkungen, Lösungsansätze", Springer, Standort, 1.
- Spiel, C., Hengstschläger, M. (2017), Migration und Bildung/Forschung, Wien.
- Spiel, H. (2018), Education in a digitalised world, Social Competency.
- Staudigl, A. (2018), "Education policy in developed and developing countries", Vienna, mimeo.
- Stiglitz, J., Sen, A., Fitoussi, J.-P. (2009), Report by the Commission on the Measurement of Economic Performance and Social Progress, Commission on the Measurement of Economic Performance and Social Progress, European Commission, Paris.
- World Bank (2016), Migration and Remittances Factbook 2016, 3rd edition, Washington, D.C.
- World Bank (2018), World Development Report 2018: Learning to Realize Education's Promise, Washington D.C.
- UNCTAD (2016), World Investment Report 2016, Investor Nationality: Policy Challenges, Geneva.
- UNICEF (2017), Humanitarian Action for Children.
- UNO (2015), United Nations Climate Change Conference, COP 21, Paris.
- Usher, D. (1997), "Education as a Deterrent to Crime", The Canadian Journal of Economics, 30(2), pp. 367-384.
- Wurm, L. (2017), "In the Aftermath of Arab Spring Revolutions: EU Cooperation, Policies and Dialogue with Tunisia and Egypt, Policy Crossover Center: Vienna - Europe, Flash Paper, (7).
- Yildirim, K. (2018), "Rojava- Democracy in the Middle East", Policy Crossover Center: Vienna - Europe, mimeo.
- Zimmermann, K.F. (2014), "Circular migration: Why restricting labor mobility can be counterproductive", IZA World of Labour.



APPENDIX 1: REFORMS NEEDED IN EUROPE

A new European policy towards the neighbourhood has to start with a common view of the model Europe should achieve. This requires a vision, new benchmarks of success, governance and instruments to improve dynamics and well-being.

An attractive vision for Europe 2050

Europe has the realistic chance of becoming a main role model for a region with high and continually increasing well-being, as well as setting ambitious social and environmental standards. It can offer its citizens the largest variety of opportunities and capabilities with which to shape the course of life. It has high life expectancy, while limiting personal and regional income differences. It excels at energy efficiency and the share of renewables. Emissions and resource use are declining due to common goals being implemented through technical innovation, education and behavioural change. Europe will continue to learn from other regions and offer its improved model to neighbouring regions and the world at large. Empowerment and social investment substitute unrealistic resistance to internal and external change. Common goals with worldwide importance and spillovers are set at the European level, but made operational by means of regional solutions, preferences and innovation. This is the answer to calls of "my country first," which lead to undemocratic and welfare-reducing populism³⁴.

This vision demands important changes in policies and mind-sets, and suggests education and other investment into intangibles as European USPs.

A new benchmark of success

First of all, the overall economic performance benchmark has to be changed from GDP and its rate of growth to "high and increasing well-being". This concept is underpinned by data sets for the SDG Goals and the "Beyond GDP" literature (Stiglitz – Sen – Fitoussi, 2009). It connects economic policy with individual needs (like income, health, employment opportunities and upward mobility), which together establish well-being.

Well-being is derived from three strategic pillars: economic dynamics, social inclusiveness and ecological sustainability. Economic dynamics imply rising incomes, with the priority placed on the lower segments and the poorer regions and on the other hand structural change and mobility. Social inclusiveness calls for a reduction of unemployment, specifically youth unemployment, but also for the employability of elder persons. Life chances should be distributed more equally, and income differences should decrease and be based on merit. Finally, environmental sustainability addresses the containment of climate change and respecting other planetary boundaries. Emissions need to decrease absolutely and strongly in line with the targets of COP 21 (UNO, 2015). Ambitions should be high, both due to a historical responsibility and as the chance for a European technology leadership in decarbonisation.

³⁴ Main parts of this vision had been agreed upon by 34 research organisations in the course of the WWForEurope project (Aiginger, 2016). It was elaborated and extended as an answer to COP 21 (UNO, 2015) during the strategy debate in Brussels ("five scenarios"). The vision should be the basis for an answer to the policy of the new US administration and other "my country first" calls, but also to the return of China as an economic powerhouse with rising investment in Eurasia. It is in line with Africa's new self-confidence and initiatives by the African Union such as Africa 2063 (Aiginger – Handler, 2017b).



Fields with pressing reform needs

Europe has finally managed to surpass pre-crisis value for GDP and employment in 2017/18. To make the new dynamics sustainable with the long-run goals of rising well-being requires fundamental reforms.

Reform field 1: Boosting and redirecting innovation

Innovation is the crucial link that can turn negative trade-offs between economic dynamics, social inclusiveness and environmental sustainability into synergies. Boosting innovation is vital for closing the technology gap to the USA as the frontier economy and for sustaining the competitive advantage of Europe relative to emerging countries.

However, innovation should also be redirected. Today, the focus of innovative activity is primarily to save labour, which can aggravate social problems in a phase of already-high unemployment. Instead, Europe should focus on increasing total factor productivity, mainly by improving energy and material productivity. This can be done through carbon pricing or taxation, specific R&D incentives and public procurement and regulations for waste and emissions.

Reform field 2: Technological leadership in renewables and energy efficiency

Deep and quick absolute reductions in the use of energy and material resources are necessary in order to limit climate change³⁵.

As a very first step, distorting subsidies for fossil fuels should be phased out. As a second step, incentives for boosting energy efficiency and standards for housing, offices and transport should be continuously raised. Combined with green innovation and a higher share of renewables, this game changer would involve Europe taking the technology lead in new energy and energy efficiency (Aiginger et al., 2013; Antal – van den Bergh, 2016).

Reform field 3: New dynamics through a reduction of inequality, uncertainty and pessimism

Europe is suffering from insufficient demand. Consumption is low, since wage shares have been falling. To counteract this, real wages increasing in line with labour productivity should be the rule. Decreasing the spread between high and low incomes could boost consumption. Increasing low wages can be achieved by reducing taxes on labour in the short run and upgrading skills in the long run.

Private investment can be stimulated by investment into low carbon infrastructure, and by reducing bureaucracy for new and fast-growing firms. Re-establishing a growth agenda in general while decreasing taxes and regulations would improve the business climate and encourage firms to invest out of the available cash flow.

Reform field 4: Shift from physical to intangible investment

Investment is important for economic dynamics and employment. However, the type of investment changes with the income level of economies. Today, Europe should focus much more on intangible rather than physical investment, ranging from preschool education to top universities, from broadband to innovation. These kinds of investments should be exempted from the upper spending limits in the fiscal pact (Aiginger, 2017A) and prioritised in the European Fund for Strategic Investments (EFSI).

³⁵ In 2014 the International Energy Agency (IEA) for the first time reported a stabilisation of greenhouse gas emissions in a year of a fast-growing global economy, but in the following years climate gases again increased.



Reform field 5: The public sector as an engine of reforms and new dynamics

Almost one half of the output of Europe's economies is re-allocated through the public sector. This power should be used to promote well-being with a better structure of taxes and expenditures.

The current tax system in the member countries functions in a completely wrong way when assessed in light of employment, equity and sustainability. Instead of being boosted, employment is heavily taxed (20% of Europe's GDP arises from this source). Taxes on property and inheritances are low, thereby perpetuating differences in wealth and life chances. Taxes on emissions are low, and subsidies for fossil energy persist, thus decelerating decarbonisation. Defining the tax base at the European level, forbidding secret contracts with firms to lure them to shift headquarters, and a greater transparency of capital flows would allow countries to tax the issuer they want.

A major game changer would be to halve taxes on labour (from 20% of GDP to 10%) and substitute the revenue loss through the following four sources (Aiginger, 2016): (i) increasing environmental taxes; introducing a carbon tax, and ending subsidies for fossil energy; (ii) tax increases on property, inheritance and financial transactions; (iii) taxes on alcohol and tobacco; (iv) increasing tax compliance, and preventing revenues flowing to offshores.

Models indicate that this tax shift could boost employment by approximately 10% in the long run and reduce greenhouse gases by 65% (Kratena - Sommer, 2014). If the "rest of the world" does not shift taxes at all, there is a marginally negative effect on European GDP growth. If non-European countries increase taxes on energy or emissions as well or if some part of the efficiency gains from the tax shift is spent on innovation, European GDP will rise as compared to the no-change scenario. This yields a win-win-win situation, with higher growth, lower unemployment and emissions.

Expenditure structures should also be shifted at the EU level as well as at the national level towards social or environmental innovations. The largest part of Community Expenditures is still spent on agricultural subsidies, here again the largest part on "direct subsidies" without ecological goals. The new budget proposal only marginally reduces this position.

Reform field 6: Switching from ex post protection to ex ante social investment

Although welfare costs are higher in Europe than in any other parts of the world, new challenges stemming from family disruption, mobility-driven non-insurance and longer time of care due to longevity are still not covered. One answer is to shift the focus from ex post protection to ex ante investment (Leoni, 2015, Hemerijck – Vandenbroucke, 2012): Investment in early education, schools and training systems can enhance the ability to adapt to change. These measures have the highest individual and societal "rate of return". Preventing unemployment or health problems instead of curing them is cheaper and increases well-being. Empowering and providing capabilities for change are more important in a rapidly changing world than protection and welcomed more by people who do not want to live on public subsidies.

Reform field 7: A social contract for symmetric flexibility

Europe definitely does not have a quantitative shortage of labour, due to ageing over the next 10 to 20 years, but it does have a double matching problem. First, Europe has an oversupply of low-skilled people and a shortage of highly qualified ones. Second, many workers would prefer to work longer hours, while others would prefer shorter hours.

The answer to the first mismatch is to upgrade skills. The second mismatch calls for new bargains between firms and employees based on "symmetric flexibility" (Aiginger, 2016; Leoni, 2015). Firms should be given the ability to adapt labour input to demand more flexibly by varying working time



cyclically. In exchange, employees should be given the right to temporarily or permanently change their working time based on work-life balance and individual preferences.

A new social contract could combine these two types of flexibility. If the "exchange" is symmetrical, it increases profits for firms as well as well-being for employees. In the aggregate this will support economic growth, but also reduce total hours worked – which is necessary if growth is not high enough to absorb the labour supply. This reduction is superior to any enforced general working time reduction, because it fits preferences and prevents poverty (which rises as a result of a general reduction without income compensation).

To summarise, the new strategy based on European strengths designs a new model fit for future challenges. Stronger dynamics are based on human capital and research, specifically investment in decarbonisation and social innovation. Dynamics come from lower income spread, **technical progress**, saving energy and material, primarily not labour. They make use of a heterogeneity of preferences, and they take a pluralistic approach. Europe is an open area enjoying globalisation, forfeiting fences, and investing in education, decarbonisation and circular migration

Table A1: UN Sustainable Development Goals

Goal 1.	End poverty in all its forms everywhere
Goal 2.	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3.	Ensure healthy lives and promote well-being for all at all ages
Goal 4.	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5.	Achieve gender equality and empower all women and girls
Goal 6.	Ensure availability and sustainable management of water and sanitation for all
Goal 7.	Ensure access to affordable, reliable, sustainable and modern energy for all
Goal 8.	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9.	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Goal 10.	Reduce inequality within and among countries
Goal 11.	Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12.	Ensure sustainable consumption and production patterns
Goal 13.	Take urgent action to combat climate change and its impacts*
Goal 14.	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 15.	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Goal 16.	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17.	Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development

Source: Transforming our world: The 2030 Agenda for Sustainable Development, UN, 2015.



Table A2: Overview of Neighbourhood Countries with various Partnership Agreements

Country (Region)	Agreement	In force since
A. Agreements in place:		
Albania (Western Balkans)	Stabilisation and Association Agreement	2009
Algeria	Association Agreement	01/09/2005
Armenia	Partnership and Cooperation Agreement	09/09/1999
Azerbaijan	Partnership and Cooperation Agreement	1999
Bosnia and Herzegovina (Western Balkans)	Stabilisation and Association Agreement	01/06/2015
Egypt	Association Agreement	01/06/2004
Georgia	Association Agreement	01/07/2016
Israel	Association Agreement	01/06/2000
Jordan	Association Agreement	01/05/2002
Kazakhstan	Partnership and Cooperation Agreement	1999
Kosovo (UNSCR 1244)	Stabilisation and Association Agreement	01/04/2016
Lebanon	Association Agreement	01/04/2006
Macedonia, Former Yugoslav Republic of (Western Balkans)	Stabilisation and Association Agreement	01/04/2004
Moldova	Association Agreement	01/07/2016
Montenegro (Western Balkans)	Stabilisation and Association Agreement	01/05/2010
Morocco	Association Agreement	01/03/2000
Palestinian Authority	Interim Association Agreement	01/07/1997
Russia	Partnership and Cooperation Agreement	01/12/1997
Serbia (Western Balkans)	Stabilisation and Association Agreement	01/09/2013
South Africa	Interim Trade, Development and Co-operation Agreement	01/05/2004
Syria	Co-operation Agreement	01/07/1977
Tunisia	Association Agreement	01/03/1998
Turkey	Customs Union	31/12/1995
B. Agreements provisionally in place:		
Botswana (SADC)	Economic Partnership Agreement	10/10/2016
Cameroon (Central Africa)	Interim Economic Partnership Agreement	2014
Ghana (West Africa)	Stepping stone Economic Partnership Agreement provisionally applied	15/12/2016
Ivory Coast (West Africa)	Stepping stone Economic Partnership Agreement provisionally applied	03/09/2016
Lesotho (SADC)	Economic Partnership Agreement	10/10/2016
Madagascar, Mauritius, the Seychelles, and Zimbabwe (ESA)	Economic Partnership Agreement, signed 08/2009	2012
Mauritius (ESA)	Economic Partnership Agreement, signed 08/2009	2012
Mozambique (SADC)	Economic Partnership Agreement	10/10/2016



Namibia (SADC)	Economic Partnership Agreement	10/10/2016
South Africa	Economic Partnership Agreement	10/10/2016
Swaziland (SADC)	Economic Partnership Agreement	10/10/2016
Ukraine	Deep and Comprehensive Free Trade Agreement, Association Agreement, signed 29/05/2014	01/01/2016
Zimbabwe (ESA)	Economic Partnership Agreement, signed 08/2009	2012

Table A3: Major Development Policy Institutions

Major Development Policy Institutions

United Nations

- [2030 Agenda for Sustainable Development](#) – 17 Sustainable Development Goals

World Bank Group

- [International Development Association \(IDA\)](#)
Total commitments (including guarantees) in FY 2016 (ending 30 June 2017): \$19.5 bn

OECD – Development Assistance Committee (DAC)

- [Official Development Assistance \(ODA\)](#) – goal: 0.7% of national GNI
Estimated global development co-operation flows 2015: \$156 bn (of which \$75.5 bn from EU and EU-MS)

EBRD – gross annual disbursements 2016: €7.5 bn

Other development banks

- [African Development Bank Group](#) – approved operations 2014: UA 5.05 bn
 - African Development Bank (AfDB) – UA 3.20 bn
 - African Development Fund (ADF) – UA 1.59 bn
 - Nigeria Trust Fund (NTF) – UA 11.5 mn
- [Asian Development Bank \(ADB\)](#) – total lending 2016: \$31.70 bn

UA = Unit of account = 1 SDR
≈ 1.2 € ≈ 1.4 US\$ (as of Oct. 2017)

European Union

- [European Neighbourhood Policy \(ENP\)](#)
European Neighbourhood Instrument (ENI): 2014-2020 budget of €15.4 bn
European Union Emergency Trust Fund (EUTF): approved programmes (as of Oct. 2017): ≈ €2.0 bn

Sovereign Wealth Funds (SWFs)

Private activities

- [Earth Institute](#) (Jeffrey Sachs)

Box A3: Unleashing African endogenous efforts Africa’s intra-regional integration potential through AfCFTA

The AfCFTA is the most important trade initiative ever established in Africa. Building on the existing regional economic communities, this mega-deal will bring together the 55 members of the African Union into a continental market with a cumulative GDP exceeding USD 3.4 bn and a total population of over one billion people. It is a very significant first step that, when concluded and successfully implemented, would become the largest free trade area in the world in terms of membership, opening up significant opportunities for people and firms from the region and beyond. The framework agreement establishing the CFTA and its annexes was signed by 44 African countries in an extraordinary Summit of the African Union in Kigali, Rwanda, on March 21. Hopefully, the rest will join in the future.

