
24-ICIT: Paper # 3-5**Quality Management/Performance Excellence Models:
a key driver supports the UN Sustainable Development Goals
2030****Roland K. Jahnke***Academician, International Academy for Quality (IAQ), USA**Fellow, American Society for Quality (ASQ)**Founder and President, Global Sustainable Excellence Concepts (GSEC), Germany**Past Vice President, Deutsche Post DHL Group*Roland.K.Jahnke@gmail.com**ABSTRACT**

This paper serves to share first-hand experience in Quality Management/Performance Excellence Models (Acquiring employment skills: Problem solving tools and skills of UN Target 4.4) within the Sustainable Development Goal 4 “Quality Education” (SDG 4) of the UN Framework 2030. At implementation of SDG 4, the further improvement of Quality Management within the Sustainable Development Goals still has significant opportunities (see the title above). Insofar this paper is to contribute to intensifying understanding of the relationships. At the UN, the discipline of quality management (problem solving, leadership) has thus found explicit access to the UN Framework 2030 for the first time. The paper includes findings of the regional “Quality Education Initiative in Asia Oceania” and the global business case Deutsche Post DHL Group with the DHL Strategy 2030, “Accelerate sustainable growth”, as a best practice.

Keywords: Sustainable Quality Management (SQM), Performance Excellence Model (PEM), UN Sustainable Development Goals (UN SDGs), Quality Education (SDG 4), Education for Sustainable Development (ESD), Global Citizenship Education (GCED), Sustainable SQCs (SSQCs), QM Qualification Curve.

1. INTRODUCTION

Before the start of the initiative in 2012, a comprehensive study of literature and data showed that we were having a quality crisis in the education sector.

“Both developed and developing countries are well aware of the quality crisis in education and its development consequences. Most of the education reform programs have education improvement and the enhancement of equity among key strategic objectives” (UNESCO, 2012a).

Considering the fundamental right of children to high-quality free primary schooling, few figures showed the actual education crisis. Approximately 61 million children do not attend school; 13 millions of them can be found in South and West Asia; and approximately 250 million children are not able to read, write or to count well - even those who have spent at least four years in school.

In at least 63 countries around the globe, girls from poor households are significantly less educated than other sectors of society. In 2012, some 71 million adolescents in low-income countries were receiving no post-primary education. 775 million adults could not read or write in 2010, two thirds of them are women. The region of South and West Asia is home to more than one half of the global illiterate population (52%).

In addition, 13% of all illiterate adults live in East Asia and the Pacific.

The subject of ‘Quality and Sustainability in Education’ is very important for policymakers, education planners and practitioners. The International Academy for Quality (IAQ) was willing to address the global challenge. For this purpose, IAQ established the Quality in Education Think Tank (QiETT).

2. “Quality Education Initiative in Asia Oceania”

2.1 Background

- In 2012 the former Millennium Development Goal Primary Education was not on track.
- Quality Management was not available.

1.1 Methodology, data, and analysis

Action Research using the following methods:

- At the International Academy for Quality (IAQ), USA, an “IAQ Quality Education Think Tank” (IAQ QiETT) was established in 2011. The author was its Chair (2011-2016).
- In the eyes of QiETT, the “ANQ Way” of the Asian Network for Quality (ANQ) provides a good setting for effectively supporting the region of Asia in improvement of quality of education.
- A new “Quality Education Initiative in Asia Oceania” initiated by the author started at the 1st IAQ/ANQ Symposium 2012 in Hong Kong.
- Within cooperation between IAQ and the ANQ, *experts of “Quality Education” exchanged experience* with the Presidents in national Quality Organizations and other Quality Experts of different countries of the ANQ Region Asia Oceania alternating every year at the *four IAQ/ANQ Symposia* in 2012-2015. The IAQ/ANQ Symposia generally took place at universities of the respective countries. Besides, the latest results of this *large-scale project “Quality Education”* were communicated in *permanent publications* in national Quality Periodicals-

Year	IAQ/ANQ Symposia in ANQ Region	Photos from panelists and participants
2012	1st IAQ/ANQ Symposium 2012 at City University of Hong Kong; Theme: <i>New Challenges: Quality and Sustainability in Education of Asia Pacific</i>	 Photo: City University of Hong Kong
2013	2nd IAQ/ANQ Symposium 2013 at Siam University, Bangkok, Theme: <i>New Quality Education Initiative in Asia Oceania</i>	 Photo: Dr. Letto Lai, HKSQ
2014	3rd IAQ/ANQ Symposium 2014 at Nanyang Technological University, Singapore Theme: <i>Future of New Quality Education Initiative in Asia Oceania</i>	 Photo: Vietnam Quality Association, Ho Chi Minh City
2015	4th IAQ/ANQ Symposium 2015 in Taipei Theme: <i>Quality Education and the New UN Sustainable Development Agenda</i>	 Photo: Dr. Letto Lai, HKSQ

Figure 1: Four IAQ/ANQ Symposia during the large-scale project “Quality Education”

Quality Organizations participating at the four IAQ/ANQ Symposia in 2012-2015: International Academy for Quality (IAQ), Asian Network for Quality (ANQ), Australian Organisation for Quality (guest), China Association for Quality (CAQ), Chinese Society for Quality (CSQ, Taipei), Hong Kong Society for Quality (HKSQ), Indian Society for Quality (ISQ), Japanese Society of Quality Control (JSQC), Kazakh Organization for Quality and Innovation Management (KOQIM, Kazakhstan), Russian Organization for Quality (ROQ), Vietnam Quality Association of Ho Chi Minh City (VQAH, Vietnam), New Zealand Organization for Quality (NZOQ).

Key takeaways:

During the IAQ/ANQ Symposia and the panel discussions, different initiatives and projects were discussed and agreed upon:

It is agreed that there are still *big needs for improvement in the field of quality education in the region of Asia Oceania* as there are big differences among the respective countries. *Exchange of experience relating to quality education between the quality organizations* (best practices, etc.) within the ANQ Network is regarded as being conducive to the entire region of Asia Oceania.

The initiative that has been started by IAQ in the region of Asia Oceania in cooperation with ANQ *will be continued*. Currently there is an alignment of the visions of IAQ, ANQ and UNESCO.

More Key takeaways can be found in my full papers written in 2013 and 2022.

1.1 Successful Start of the “Quality Education Initiative in Asia Oceania”

The first result of QiETT’s Large-Scale Project, which was organized in cooperation with ANQ, has led to regional cooperation with ANQ quality organizations aimed at improving and enhancing quality in the education sector and agreeing on common goals and actions. During a QiETT study tour of India in 2012 and 2013, for example, lessons were learned in cooperation with the Indian Society for Quality (ISQ).

QiETT has provided support in initiating and organizing national and regional conferences in the education sector and also provided IAQ keynote speakers. In 2013, for example, the Kazakh Organization for Quality and Innovation Management (KOQIM) organized the first Quality Conference in the Higher Education Sector at the Astana Medical University for the central Asia region with 400 participants and was supported by the government of Kazakhstan.

In June 2014, QiETT supported the ‘Education FORWARD’ conference hosted by North-Eastern Federal University (NEFU), Yakutsk, Far East of Russia, with 600 participants.

Participation in the IAQ/ANQ Symposia enabled an important exchange of experience among quality organizations and new initiatives in their respective countries and regions.

Regular participants at the IAQ/ANQ Symposia saw some real benefits. For example, the Vietnam Quality Association of Ho Chi Minh City (VQAH) was holding own lectures during the symposium and saw continual improvement of quality in the university sector. At the ANQ Congress 2014, the Hanoi University of Industry (HAUI) and the Ho Chi Minh City University of Food Industry (HUPI), who had both been award winners in 2014, received the ANQ Recognition for Excellence in Quality Practice (ARE-QP). At the IAQ/ANQ Symposium 2014, the two universities presented their results.

Further exchange of experience, which took place at the site and during the symposium, had a practical reference and immediately created high value for Quality Education in Singapore. SPRING Singapore gave a comprehensive insight into successful quality work done in Singapore. SPRING Singapore is part of a ministry of the government of Singapore, which employs Principals and former Principals, among other

things as assessors (in addition to assessors from other sectors, such as the business sector). SPRING Singapore has its own Framework for Quality Improvement, and a master plan for awards for schools, which are to enable continual improvement of quality in Singapore, has been drawn up.

The Singapore Quality Award is the highest award in Singapore's education sector. Up to 2014, this award has been reached by very few schools. Nanyang Girls' High School (NYGH) became the Singapore Quality Award Winner 2013 and is thus the first girls' school in Singapore to win such an award. In her presentation "Journey to Excellence at Nanyang Girls' High School", the Vice Principal shared the experience and excellent work of the school with the participants of the symposium.

The delegates at the IAQ/ANQ Symposium 2014 visited Nanyang Technological University (NTU) to view 'Classrooms of the Future' and were given a unique insight into work done by the National Institute of Education (NIE), the national institute for teacher training in Singapore.

In addition to the IAQ QiETT Large-Scale Project of the New Quality Education Initiative in Asia Oceania, which was organized in cooperation with ANQ, *exchange of experience about these issues with other regional quality organizations took place*, at the same time (please refer to the relevant hints in the references). During the IAQ/ANQ Symposia, these experiences were shared with ANQ's quality organizations.

In Europe, there were several meetings with the European Organization for Quality (EOQ) at EOQ's main assembly as well as at the EOQ Conference 2013 with keynote speeches and site visits paid to schools and universities in Estonia. The author was also invited to the 5th MEQA Conference 2013 in Jeddah, Saudi Arabia. There the author did not only participate in the conference and hold a keynote speech. It also was still another quality initiative in schools and universities that was agreed.

In the Americas, there were not only meetings with the leading quality organizations in Argentina in 2014.

Upon their mediation, site visits were paid to best practices in Quality Education in schools and universities in Buenos Aires. In North America, the author participated in the ASQ Division Education Conference of the American Society for Quality (ASQ) in Houston, Texas, in 2015. Moreover, it was possible to pay a visit to a school and have exchange of experience about winning of the Malcom Baldrige Quality Award in the US.

The results from the large-scale project were also accompanied by publications of the national ANQ quality organizations in a timely manner. This served to help to make these results accessible to a larger group of persons interested at the site. Among other things, the author cooperated by acting as a columnist for a quality magazine of the national quality organization in New Zealand for 5 years. The publications were also translated into several languages and thus made accessible for publication by additional national quality organizations.

Cooperation with regional quality organizations added great value to the different regions worldwide. *IAQ acted as a global Quality Organization. Global cooperation of IAQ with UNESCO in Paris is being prepared.*

1.1 IAQ Collaboration with UNESCO

Furthermore, the author could, as an *IAQ Representative at UNESCO* in Paris (2012-2016), also *personally collaborate in developing a new SDG 4 "Quality Education"* with interdisciplinary international teams as the only participant coming from Quality Organizations. UNESCO is the specialized UN agency for education. Thus, a topical and active exchange about the further development of quality in the education sector was enabled.

2.4.1 Education for Sustainable Development (ESD) tomorrow

The author was invited to participate in and collaborate at the UNESCO World Conference ESD in Nagoya, Japan, which was held in November 2014. There the New

UNESCO Global Action Programme on Education for Sustainable Development (ESD) for 2015 and beyond was elaborated and passed.

The most recent developments in ESD were shared with representatives of quality organizations by the author both in publications (Jahnke, 2015) and right after an international conference in Pakistan.

In 2015, other important global programs came to an end. UNESCO’s worldwide movement ‘Education for All’ (EFA) was the most important commitment to education over the previous decades, endeavors since 2000 bringing about significant progress. By 2015, however, none of the goals of the EFA Agenda had been achieved nor had the education related Millennium Development Goals (MDGs) been achieved.

There was a global consensus about the need for a new forward-looking education agenda, which will round off work that has not been completed. In this respect, it will be about focusing on equity, learning and, above all, quality.

Good quality of education is crucial for societies and governments. There was a growing international recognition of ESD as an integral element of quality education and a key enabler for sustainable development.

Thus, it can be assumed that quality in education will play a key role in the post-2015 agenda. Among other things, this shift is vital to improving the educational opportunities. The contents of the Global Action Program (GAP) on ESD, which were passed in Nagoya, thus form a central guide for the draft of the post-2015 agenda that was negotiated. At this point, there is not enough space to present details about the GAP, but further information can be found in the roadmap document (see UNESCO, 2014).

2.4.2 New UN SDG Framework 2030

The new UN Framework 2030 with the new SDG 4 “Quality Education” was passed in 2015 (see Figure 2).



Figure 2: UN Framework 2030 with the 17 new SDGs (Source: United Nations)

Before the whole UN Framework 2030 was passed by the 196 member states of the UN in December 2015, however, it was, in a preceding step, a matter of agreeing to the

completely new draft of SDG 4 Quality Education at the UNESCO World Education Forum 2015 in Incheon, Republic of Korea, in May 2015. More than 1,600 participants from 160 countries, including 120 ministers, adopted the Incheon Declaration for Education 2030, which sets out a new vision for education for the next fifteen years. The Incheon Declaration is trail-blazing for implementation of the new SDG 4 Quality Education (see UNESCO, 2016). The author also personally took part in the UNESCO World Education Forum.

As for the new UN Framework 2030, an excellent result could be achieved. For the education sector, the new SDG 4 (Quality Education) was formed. This SDG 4 has completely new targets and indicators. The SDG 4 aims at “ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all”.

The SDG 4 is made up of 10 targets. At this point, we are not going to discuss all of them because many targets are primarily relevant to policymakers.

As for the discipline of Quality Management, we would now like to focus upon Targets 4.4 (Increase the number of people with relevant skills for financial success) and 4.7 (Education for Sustainable Development and Global Citizenship). As for further details, please refer to the deliberations about implementation of SDG 4, which you can find below.

What is encouraging is that the term of quality is explicitly named in SDG 4 Quality Education. This SDG 4 is the only SDG among all new 17 SDGs where the term of quality is mentioned in the name explicitly.

Furthermore, it should be noted that the SDG Quality Education is in the heart of all SDGs. There are relevant links to the other SDGs (see Figure 3).

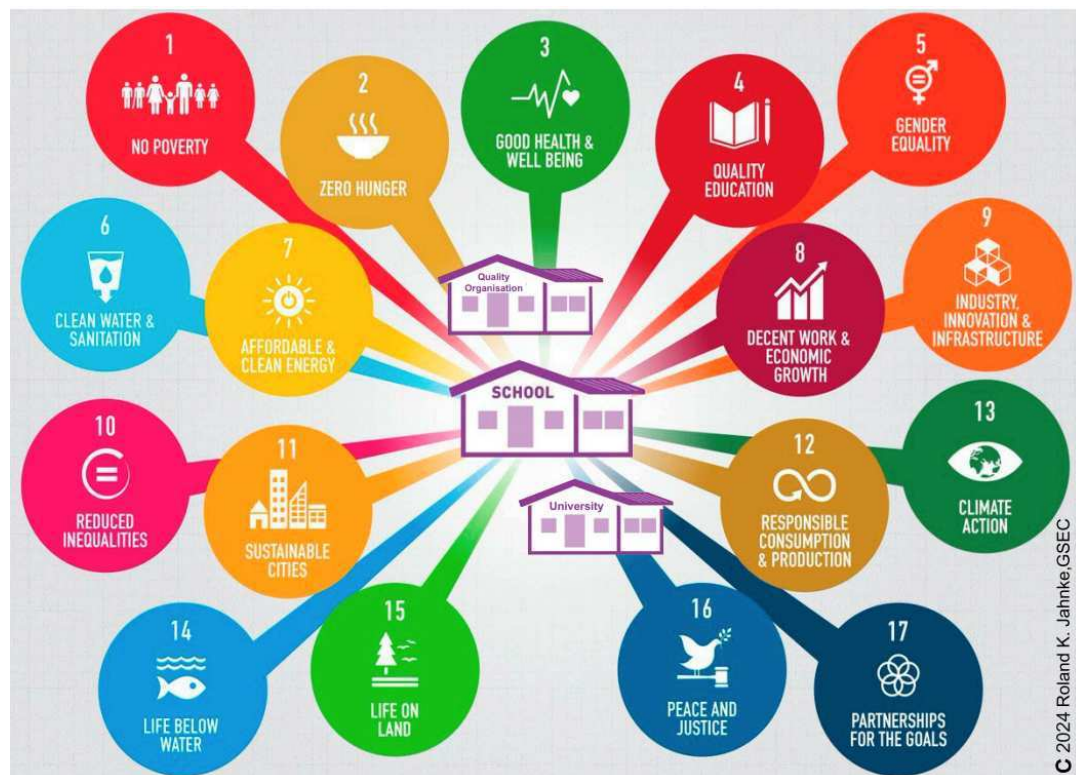


Figure 3: Quality Education is in the heart of the new SDGs

There are many indicators to measure the SDGs. Besides a Global Sustainable Monitoring Report, which serves to measure the 231 indicators of all 17 SDGs with 169 targets for each country, there is still another Global Education Monitoring Report of UNESCO for SDG 4.

Overall, the step-by-step development of the Quality Education Initiative in the Asia Oceania Region was successful. After comprehensive international involvement of the Quality Experts from national and regional Quality Organizations, constructive collaboration with the UNESCO Headquarters in Paris could be enabled in parallel. UNESCO is the specialized UN agency for education.

Successful collaboration with UNESCO enabled the development of the new UN SDG 4 Quality Education.

3. Implementation of the new sustainable QM tools/skills of the “Quality Education Initiative” in Asia Oceania

After the introduction of the new UN SDG Framework, *the successful IAQ/ANQ Large-Scale Project of the years 2012- 2015 was discontinued in the ANQ Region*. This project was transferred to regular operations in the ANQ Region, *a new step-by-step phase of “Think globally - Act locally” having been introduced*.

At still another “Quality Education” Symposium in 2016 on a regional scale in cooperation with ANQ and the FEFU University in Vladivostok, the author, who acted as the Chairman, exchanged the results achieved up to now.

Implementation of the new SDG 4 started in 2016. The author founded the *start-up “Global Sustainable Excellence Concepts”*, Germany, Europe. The method consists in *developing different case studies, the new concepts* simultaneously generating new findings. The case studies are developed together with national Quality Organizations (e.g., EQUIP-Pakistan, Hong Kong Society for Quality, China Association for Quality) and regional Quality Organizations (e.g., ANQ).

In order to make it easier for everybody to understand the term of “Sustainability”, the definition made by Brundtland is hinted at. This definition was published by the United Nations Brundtland Commission as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” To enable an efficient integration of quality management (SDG Target 4.4) and sustainability (SDG Target 4.7), the author has developed the *definition of Sustainable Quality Management (SQM)* (see Figure 4). This is the author’s hint: “If we want sustainable development, we will definitely have to give first priority to quality management”.

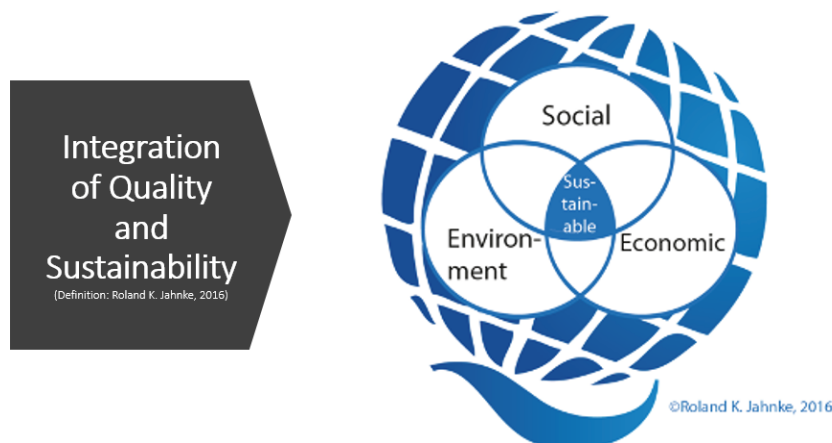


Figure 4: Definition of Sustainable Quality Management (SQM)

To make Quality Education even more understandable, it should be noted that the author has made the long-standing experience that *Quality Education (from the perspective of Quality Management) has 2 sides of the medal. It is a question of Education in Quality and Quality in Education*.

3.1 QM Qualification Curve

In SDG target 4.4, acquire employment skills (problem solving, leadership etc.) are mentioned explicitly.

This makes it possible to establish quality management programs by means of lifelong learning by 2030.

Lifelong learning is an important part of SDG 4 Quality Education. This means for Quality Management and Performance Excellence that we will reach an increasing quality maturity level over the years (from schools up to national quality organizations). *The employees, who are increasingly becoming qualified, will improve their organizations* (see Figure 5).

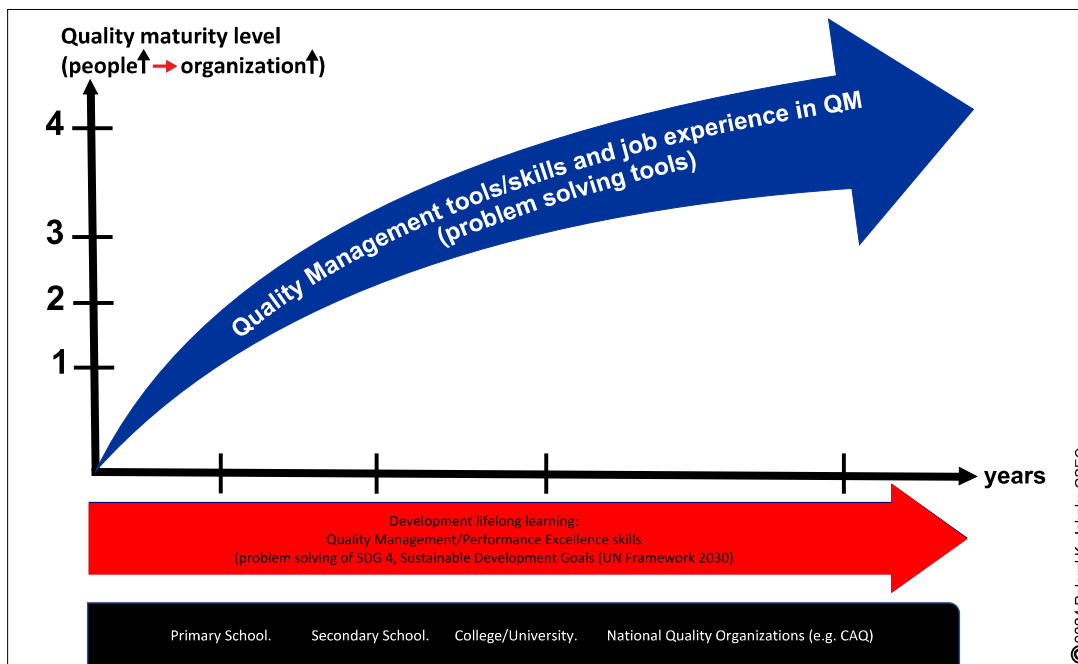


Figure 5 (QM Qualification Curve): Lifelong learning Quality Management and Performance Excellence (problem solving tools and skills of SDG 4)

It is gratifying to see how the idea of lifelong learning in SDG 4 is also progressing in quality management (problem solving) and how the integration of quality management and sustainability is becoming increasingly important (see table 1, including own case studies).

Development lifelong learning: Quality Management/Performance Excellence skills (problem solving and assessment tools)						
Education Level	Primary School (Pupils)	Secondary School (Pubils)	College/University (Students)	National Quality Organization (Quality and performance professionals)		
Learning Quality Management tools and skills	Student Quality Circles (SQCs) SQCs → SSQCs	Student Quality Circles (SQCs) SQCs → SSQCs	TQM study program for students (national/international)	TQM tools: Balanced Scorecard, LEAN Management, Six Sigma Green Belt, etc.	ISO tools  ISO 9001:2015, ISO 14000, ISO 26000 etc.	Performance Excellence Models (global) e.g.: MBNQA, EFQM, Deming, CAQ
Assessment of organizations	ISO 9001:2015, MBNQA Education, EFQM Model	ISO 9001:2015, MBNQA Education, EFQM Model	Performance Excellence Models: MBNQA, EFQM, Deming, CAQ (Framework for Business, Healthcare, Education etc.)			
Development to Sustainable Quality Management (SQM, including own case studies)	Pupils learn Sustainable QM (SQM) - ESD (UNESCO Schools), SDG 4.7 - GCED (Japan Art Mile), SDG 4.7 „Further development of Student Quality Circles (SQCs) to Sustainable SQCs (SSQCs)” (EQUIP-Pakistan), Integration of SDG 4.4 and 4.7 Leadership in education: Call for change agents (GMER 2024/5)		Students learn Sustainable Quality Management (SQM): - Study SQM - Sustainability research Leadership in education: Call for change agents (GMER 2024/5)	Successful “Quality Education” Initiative in Asia/Oceania: IAQ/ANQ large-scale project to consider Quality Management at United Nations; see now new UN Framework 2030. Regional: Collaboration with Asian Network for Quality (ANQ), in progress National: Collaboration with China Association for Quality (CAQ) and Hong Kong Society for Quality, in progress Best practice: SQM in business sector New ISO tools (Addition of Climate Change), since 2025		
UN Framework 2030	Sustainable Development Goal 4: Quality Education. Target 4.4: Increase the number of people with relevant skills for financial success Acquire employment skills: problem solving (SQCs, TQM), critical thinking, creativity, teamwork, communication skills etc.					

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Table 1: Increasing number of quality/sustainability cases in the context of the QM Qualification Curve in the region of the “Quality Education Initiative” in Asia Oceania

Additional hints about the further development of the respective levels (Table 1):

- School area (primary and secondary schools)
- On the occasion of the UNESCO World Conference ESD 2014 in Japan, the author met the initiators of the *Japan Art Mile Projects (JAM)*. At these projects, pupils of different schools from Japan learn international cooperation with pupils of other schools in other countries. In this respect, it is a matter of elaborating an extensive unique mural with the topic of the UN SDGs. This mainly serves to promote Global Citizenship Education (GCED) according to SDG Target 4.7. Thanks to this, JAM was highly recognized by the Headquarters, Paris, on the UNESCO Week 2017 in Canada (Jahnke, 2017).
- JAM saw an international accomplishment on the occasion of the Olympic Games 2020 in Tokyo. There schools from 206 countries and regions from the JAM Project took part (Japan Art Mile, 2020). The author was the initiator of a first JAM Project with a school in Germany. This project was also continued in the subsequent years. Then all murals were exhibited on-line during the Olympic Games in Tokyo. (The decision to exhibit the murals on-line was taken because of the Corona epidemic). In the meantime, JAM and GSEC have been developing a global strategic partnership.

Between Japan and Germany, there has already been a long tradition relating to *Education for Sustainable Development (ESD)*. Thus, it was in 2014 that the author also exchanged experience in ESD Projects of the UNESCO Associated Schools in Japan.

GCED and ESD became SDG Target 4.7 of the UN Framework 2030.

- In different countries of the Asia Oceania Region (see Bangladesh, India, Nepal, Pakistan, Sri Lanka) as well as in Turkey and Mauritius, voluntary *Student Quality Circles (SQCs)* are promoted in different schools. Thanks to this, the pupils will be prepared for Quality Management very early. In 1999, the City Montessori School (CMS) in Lucknow, India, founded an international association by establishing the World Council for Total Excellence in Education (WCTQEE). In Pakistan, there is

EQUIP-Pakistan as a national Quality Organization, where the pupils and schools are enabled to guarantee their further development and exchange their best-case studies at competitions at annual comprehensive conferences.

At these national conventions, the author held several keynote speeches, workshops, and side events at SQCs in Pakistan. When doing so, he has exchanged international experience of ESD and GCED, which is positive by now, since 2014, which means he started to do so at an early stage. EQUIP-Pakistan, for its part, was increasingly becoming active (among other things since Modernage Public School from Pakistan took part in the above JAM Projects) and altogether succeeded in becoming a role model. In this respect, a gradual practical integration of GCED and ESD (SDG Target 4.7) within SQCs in the sense of Quality Management (SDG Target 4.4) was successfully translated into action and driven in a strategic partnership between GSEC, Germany, Europe, and EQUIP-Pakistan for several years.

As early as 2017, the tool of SQCs was taken up to the Youth Policy Toolbox by the UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific) as a successful problem solving technique (see UNESCAP, 2017).

Meanwhile all this has led to the development of the *new concept Sustainable Student Quality Circles (SSQCs)*. This concept quasi is a further development of SQCs to SSQCs. This sustainable quality tool helps to trigger still another transformation process in the education sector (see Figure 6).

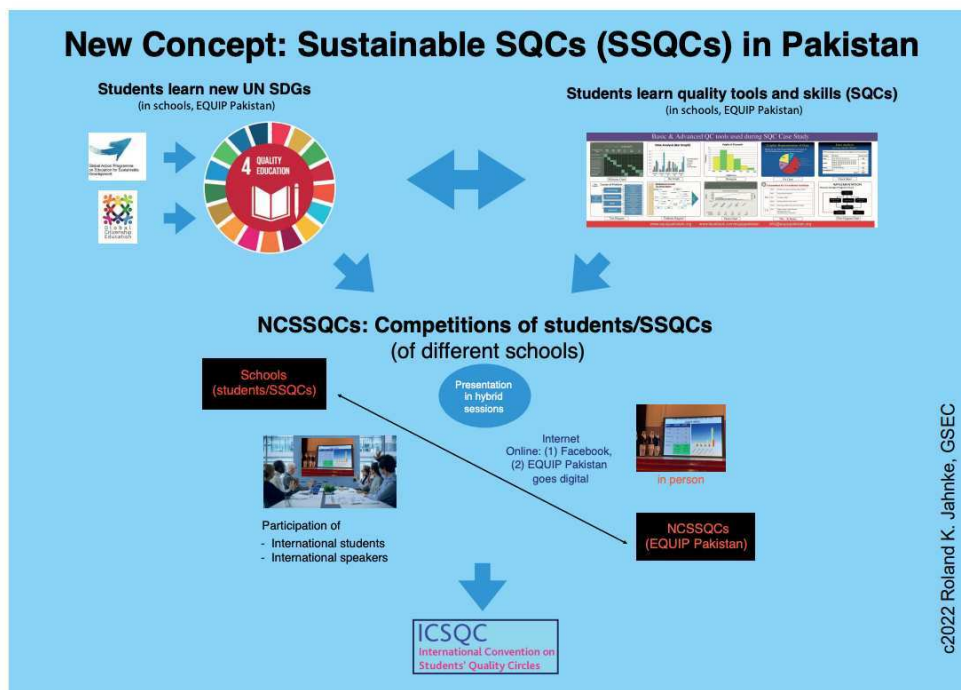


Figure 6: New Concept of Sustainable SQCs (SSQCs) in Pakistan

A detailed presentation with concrete data and facts and figures about the case study “New SSQCs at EQUIP-Pakistan” can be found in the proceedings of the ANQ Congress 2022 in Beijing (Jahnke, 2022a). On the occasion of the new concept of SSQCs, the author held a keynote speech at the 14th NCSQCs of EQUIP-Pakistan, which was organized in 2022 (see the video “Jahnke, R.K., 2022b”). Based on this, he was nominated international patron of the NCSQCs of EQUIP-Pakistan.

- Besides the fact that the pupils learn quality tools and skills in the school area, it increasingly is a matter of the fact that *school management itself applies Quality Management*.

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- The most recent *Global Education Monitoring Report 2024/5 (GEMR)* deals with the focus on Leadership in Education for the first time (UNESCO, GEMR, 2024). The report analyzes the role of leaders and managers at all levels in education by means of international studies and investigations and emphasizes that *success at learning decisively depends on school administrations*. The concept of school leadership has developed differently across countries and over time.
 - The GEMR calls for efforts to develop leaders in four key leadership dimensions so that they can *set expectations, focus on learning, foster collaboration, and develop people*.
 - The report also calls for investment in education officials' capacity to serve as system leaders with a particular emphasis on instructional leadership and *quality assurance* (see the summary of GEMR, 2024).
 - In this respect, quality assessment tools can be conducive to assessing and evaluating organizations.
 - University area (college, university)
 - As early as at the IAQ/ANQ Symposia during the large-scale project “Quality Education” (see above), the author could state that *Total Quality Management programs were available to students for teaching purposes* at single universities in Asia and/or had been initiated in Central Asia.
 - At the Asia Quality Tour, which the author made in 2023/24, he could, at site visits, find out how *additional progress in the field of sustainability* had meanwhile been achieved in *research projects of the City University in Hong Kong*.
 - At the same time, the fact that *quality management und sustainability skills are learned at schools and universities* helps to promote the students and prepare them for their subsequent activities in society (organizations of any kind).
 - In terms of *leadership education at universities*, it basically is the same findings of the comprehensive *study of leadership education*, which was reported by UNESCO in the new GEMR 2024/5, that apply. Separate studies and investigations are being prepared. Different hints in the paper *Leadership in higher education for a changing world* (Galan-Muros (2024)) already are interesting.
 - Quality organizations:
 - A main task when it comes to guaranteeing the further development of quality and performance professionals in the field of Quality Management/Performance Excellence skills is assumed by national and regional quality organizations.
 - In order to ensure that Quality Management could be taken into account by the UN, the “Quality Education Initiative in Asia Oceania Region”, which had taken several years and has been described above, could be completed successfully. Now *Quality Management has found an extremely important position within the SDG 4 Quality Education of the UN Framework 2030*.
 - In September 2021, the London Declaration helped to reach an agreement forcing ISO and its members to integrate measures for climate protection into their Standards and ensure that future and existing *ISO Standards support the Paris Climate Convention and the goals and objectives and targets relating to sustainable development and action taken to promote adaptation and resilience*. The declaration is aimed at helping to promote the transition to climate neutral economy and help companies to reduce their greenhouse emissions and operate in a manner fostering sustainability (ISO, 2024).

At audits conducted since January 2025, it has been required to ensure implementation of the new additional requirement can be demonstrated and evidenced at the audit. Besides ISO 9001, the ISO Standards 14001, 45001 and 5001 are concerned.

- Meanwhile the author has established a multi-annual cooperation in the field of Quality Management with the regional Asian Network for Quality (ANQ) as well as with the Hong Kong Society for Quality. In this respect, the publication of different case studies is being prepared (see e.g., Jahnke, 2024).

3.2 QM/PEM tools and skills as a key driver to support the “UN SDGs 2030”

It already is in Figure 3 that we could learn Quality Education was in the heart of the new UN SDGs. At schools, universities, and quality organizations, personal Quality Management skills of pupils, students and professionals are improved by teaching and research as well as at trainings and based on increasing job experience (see the QM Qualification Curve in Figure 5). The fact that organizations themselves actively deal with relevant skills as well as new ISO Standards help to increase the opportunities for improvement for the organizations themselves.

Figure 7 shows the significance of QM/PEM tools and skills (problem solving, including leadership), the further development leading up to sustainable organizations being enabled by the development and deployment of a new strategy. In this respect, QM will act as a key driver for improving results and outcomes in the context of organizational goals while supporting improvement as far as the SDGs chosen by the respective organizations are concerned.

The organizations can come from different areas, such as education (e.g. schools and universities), the healthcare sector (e.g. hospitals), business (production companies and service providers) or NGOs (non-governmental organizations). In this respect, it is a matter of finding an optimal selection of QM/PEM tools, which is, among other things, specific to the business, education, and healthcare sectors.

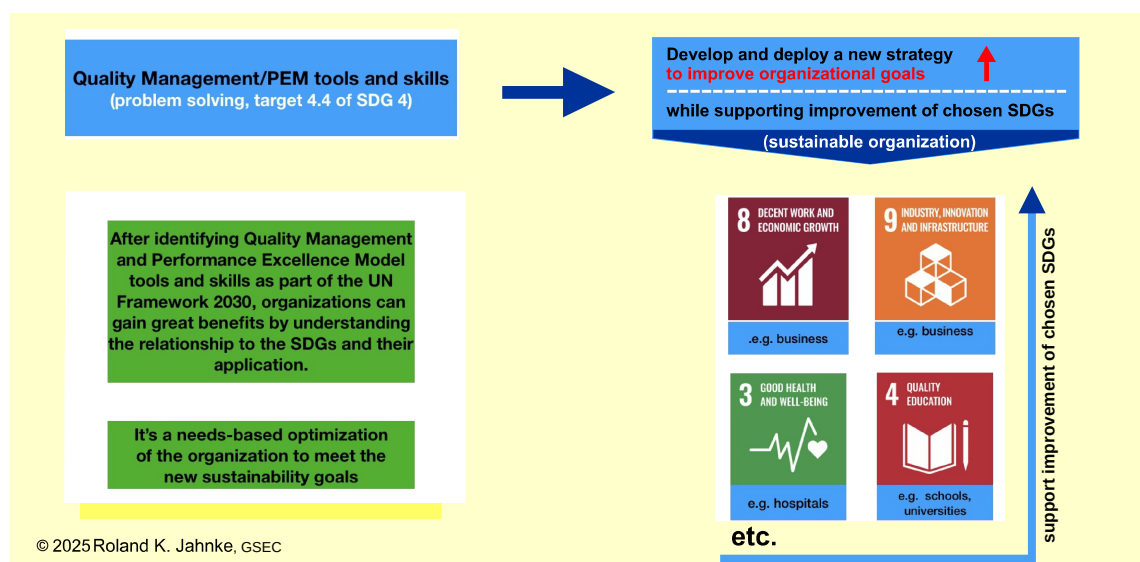


Figure 7 (Conceptual Framework): Quality Management/Performance Excellence Models: a key driver supports the UN Sustainable Development Goals 2030 (Roland K. Jahnke, 2025)

Overall, the UN SDGs include 17 SDGs with 169 targets and 231 indicators. This leads to new challenges for the single organizations when it comes to becoming better and more successful. At the same time, the results and outcomes of the respective SDGs will

be improved (see the following global business case Deutsche Post DHL Group as a best practice in 4. As a worldwide company group, DHL also is successful in the Asia Oceania Region).

4. A global business case: Sustainable Quality Management at the DHL Group

As for the desired developments leading up to organizations increasingly operating sustainably, which have been presented above, they are shown in a short version based on the global business case of Deutsche Post DHL Group (now DHL Group) and its DHL Strategy 2030, “Accelerate sustainable growth”. The DHL Group is regarded as being a role model worldwide.

By now the DHL Group is the world market leader in logistics, which has two strong brands, DHL and Deutsche Post. The international service portfolio includes express, global forwarding, supply chain, e-commerce, and Post&Parcel Germany. In 2023, the company group had 594,000 employees, who saw to it in more than 220 countries and territories that the services would be provided every day and thus contribute to the company’s success. A revenue to the amount of € 81.8 billion was generated, the EBIT (earnings before interest and taxes) amounting to € 6.3 billion. The profit stability of the stock of Deutsche Post amounts to 0.81 out of 1.0, which indicates that the company has a very reliable development of profit.

Deutsche Post is a success story. From 1990, the public company “Postdienst” (Postal Service), which emerged from the then “Deutsche Bundespost” (German Federal Post Office), was first renovated fundamentally in several comprehensive transformation steps by developing new operational concepts by Postal Management. At the same time, there was a focus on a competitive divisional structure with clear leadership principles. As early as 1994, it was for the first time in the whole of Germany, which had been reunited, that a positive result was achieved based on ordinary business activities, amounting to DM 257 million (EUR 131,402).

On January 1, 1995, the Deutsche Post became a Stock Corporation. On this occasion, the “Postdienst” (Postal Service) was privatized. The two postal reforms taken in Germany in the 1990’s were far-sighted political decisions. The IPO (initial public offering; stock market entry) occurred in 2000. It is particularly based on full takeover by DHL in 2002 that Deutsche Post became present on an international scale. Thanks to this, Deutsche Post could significantly enlarge its international network and be strengthened on the global logistics market.

4.1 Quality Management at the DHL Group

On the way from a highly deficitary national authority to the world market leader DHL Group, the methods of quality management could make a significant contribution. At renovation of Deutsche Post from 1990, transformation could first be achieved by means of a multi-phase breakthrough management (Jahnke, 2009).

From 2006, it was under the name of First Choice that the group-wide internal program run by Deutsche Post DHL Group for purposes of continuous service and process improvement was introduced with a lasting impact and effect. Among other things, this program is based on the principles of Six Sigma, Change Management and Lean Management (DHL Deutsche Post, 2020). More than 40,000 managers and employees are trained in the methodology, and some 32,000 improvement activities are implemented. In addition, more than 240,000 (>40%) employees are involved in performance dialogs every day. First Choice has become an integral part of how DHL runs the business. DHL has helped to improve the processes, engage and involve the employees and delight the customers. DHL calls it First Choice because DHL wants to be employer of choice, provider of choice and investment of choice.

4.2 DHL Strategy 2030

Thanks to Strategy 2030, “Accelerate sustainable growth”, DHL will strengthen its leading position in global logistics. This strategy is rooted in DHL’s strong foundation, which is driven by DHL’s ambition in terms of climate neutrality and centered on growth. By expanding their capabilities and seizing new market opportunities, DHL aims at maximizing DHL’s impact on the logistics industry and beyond (DHL, 2024a).

The bottom lines remain at the heart of how DHL manages the company. By introducing Strategy 2030, DHL introduces a fourth bottom line. In addition to Employer of Choice, Provider of Choice and Investment of Choice, DHL also wants to be the Green Logistics of Choice.

Following, please find some details about the new sustainability approach at DHL (DHL 2024b). Having a clear plan is essential for achieving results. That’s why DHL has firmly integrated sustainability into DHL’s Corporate Strategy 2030. Now DHL’s environmental, social and governance goals are embedded into DHL’s strategic bottom lines. Strategy 2030, “Accelerate Sustainable Growth”, emphasizes DHL’s commitment to decarbonizing DHL’s business while enhancing DHL’s profitability and also introduces “Green Logistics of Choice” as a fourth bottom line complementing DHL’s targets.

At DHL, sustainability is a journey, not a destination. That’s why DHL has set milestones helping to focus DHL’s efforts and measure its progress. These transparent and time bound targets and KPIs are integral to their strategic planning and decision-making processes just as much as DHL’s financial goals. For 2030, DHL aims at achieving a reduction of greenhouse gas emissions to <29 metric tons of carbon by doubling and accelerating decarbonization measures across all operations and to net zero by 2050. Additional clear goals for 2030 are being published. DHL helps DHL’s customers to decarbonize their supply chains to the greatest extent possible.

The DHL Strategy 2030 serves to revive First Choice to integrate customer experience as a key to sustainable growth into the operational processes even more. See Figure 8 with the new DHL Strategy 2030.



Figure 8: DHL Strategy 2030: “Accelerate sustainable growth” (Source: DHL Group)

Overall, it is a question of a new sustainable quality management (see above). At the same time, DHL is being certified according to ISO 9001:2015 worldwide.

4.3 Support of the UN SDGs 2030 for sustainable development

Besides pursuing the four bottom lines, DHL, who has been a partner of the United Nations for many years, *very actively supports UN Sustainable Development Goals 2030*. When doing so, DHL focuses on the six areas where the biggest possible impact and effect can be achieved.

The business purpose of the DHL Group consists in connecting people and improving their lives.

Therefore the spirit of the UN SDGs also coins any activities of DHL. For example, DHL responsibly facilitates global trade, enables people to improve their lives and makes a significant contribution to prosperity and well-being and a better future for all.

To significantly contribute to a sustainable development, make use of the strong points of DHL in a well-aimed manner and achieve the biggest possible impact and effect, DHL mainly focuses on the following six SDGs (DHL, 2024c):



DHL has identified three central concerns, which support these six SDGs: In this respect, DHL wants to provide green solutions for climate friendly logistics, be the best employer for everybody and a trustworthy and reliable partner. The programs and initiatives that are to help to achieve these goals are to improve access to high-quality education, strengthen women, promote the equality of opportunities, create jobs, enable economic growth, contain climate change and promote collaboration and partnership. These goals and action serving to achieve them will be estimated in concrete terms.

Consequently, the support of the six chosen SDGs also is essential for pursuing the four bottom lines. Ultimately optimal ways to achieve these goals are supposed to be achieved by using sustainable quality management. Insofar quality management at DHL also is a key driver for fulfilling the SDGs.

5. Findings (Results and Analysis)

- The “*Initiative Quality Education in Asia Oceania*” was successful. In the UN Framework 2030, which has been completely newly developed by the UN, a completely new *SDG 4 Quality Education* has been considered. Now Quality Education is in the heart of the 17 new SDGs.
- In SDG Target 4.4, Quality Management (problem solving, leadership, etc.) plays a significant role in the acquisition of professional skills and capabilities. The topic of sustainability is given a new priority, which is pursued in SDG Target 4.7 with Education for Sustainable Development (ESD) and Global Citizenship Education (GCED). By integrating global Quality Management (4.4) and ESD/GCED (4.7), the author develops a new definition, which will lead up to *Sustainable Quality Management*.
- As SDG 4 is aimed at enabling lifelong learning, the author has, for the first time, developed a QM Qualification Curve for Quality Management. This means for Quality Management and Performance Excellence that we will reach an increasing quality maturity level over the years (from schools up to national quality organizations).

- These qualified people will be employed in organizations of any kind (schools, universities, companies operating in the business sector, healthcare, NGO's, etc.) so that they can improve their own organizations while contributing to an improvement of the UN SDGs.
- Now Quality Management (as a part of SDG 4 Quality Education) is part of the system “UN Sustainable Development Goals 2030”. This opens opportunities for improvement in all 17 SDGs. Ultimately Sustainable Quality Management (SQM) will, as part of organizational development, become a key driver for supporting the UN SDGs 2030.
- In the new GEMR 2024/25, change management in the sense of Quality Management in schools and universities is demanded in the special chapter “Leadership Education” for the educational system (SDG 4) so that the efficiency of school administrations can be increased by change agents. This might help the respective educational institution to improve additional SDG 4 Targets. This means the methodology of Quality Management is expected to make operations more well-aimed and result focused. Relevant trainings for Principals are recommended explicitly. This acknowledges the above mentioned “Quality Education Initiative in Asia Oceania”.
- The lessons learned from the QM Qualification Curve help to develop and foster additional opportunities for the future QM professionals. At the same time, this enables improved and increasing use of Sustainable Quality Management in future.
- At the further development leading up to sustainable organizations, QM will, as a key driver, not only help to achieve the organizational goals but also to increasingly support and improve the UN SDGs. This will result in an effective Sustainable Quality Management as is shown in the best practice case DHL Group.
- Implementation in practice opens significant opportunities to organizations of any kind when it comes to supporting the UN SDGs 2030 (see the conceptual framework in Figure 7).
- The findings are shared with the representatives of national Quality Organizations and directly with the participating Quality Professionals at national and regional quality conferences by the author.

6. CONCLUSIONS

In 2015, the UN passed the new UN Framework 2030 with SDG 4 “Quality Education”, which was given a completely new importance. SDG 4 is in the heart of the 17 new SDGs and is thus part of the UN Framework 2030. For Quality Management (SDG Target 4.4 problem solving), this means a holistic perspective.

After the new “UN Sustainable Development Goals 2030” had been introduced, Quality Management was identified as being a key driver for supporting SDGs. Increasing use of Sustainable Quality Management helps to enable a transformation making an increasing number of organizations even more sustainable. This will also lead to supporting and improving the UN SDGs.

Overall, it is a matter of significantly increasing the speed and intensity of increasing the number of sustainable organizations while increasing the sustainability of any organization. This will be all the more important as it will, for example, altogether

become more and more difficult to achieve the climate goal of a reduction by 1.5 degrees by 2030.

Besides, the UNESCO Global Education Monitoring Report 2024/5 calls for investment in education officials' capacity to serve as system leaders with a particular emphasis on instructional leadership and quality assurance. Quality Management in schools and universities is expected to help to improve the results and outcomes even more.

Ultimately it will, on the whole, be a matter of helping Sustainable Quality Management (SQM) to encompass organizations operating in different areas.

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Authors' Background



Roland K. Jahnke is Founder and President of Global Sustainable Excellence Concepts (GSEC), Germany, Europe, works as an International UN Consultant and develops new concepts by, e.g., leading Asia Quality projects, and acts as a Keynote Speaker at Quality conferences.

In addition to several International Studies in economics and Total Quality Management the author got intensive job experience in business sector. He worked for 30 years in several leadership positions in Global Business sector at Deutsche Post DHL Group. Here he actively helped to design the complete transformation of the Deutsche Post DHL Group from a national public authority to a global player (now world market leader in logistics) by means of various quality projects.

In parallel the author had several leadership positions in international quality organizations (Academician of the International Academy for Quality (IAQ) and IAQ Vice President Projects, Fellow of ASQ, EFQM European Award Assessor etc.). Here are some Leadership positions in education sector: Former Chair of IAQ Quality in Education Think Tank, observer of UNESCO Headquarters.

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