

Umberto Colombo in Memoriam – Honouring his Contribution to the OECD

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When a great man leaves us, we are sad, count his years and are amazed that one man can do so much in a short life-time even if he has exceptional qualities. These are my feelings today. How could one single person be active in so many fields, come into view so often, become so widely known and inspire so many others?

Few of his friends were aware of the whole range of his work and the enormous number of his relations. He rarely spoke about all his activities and contacts. He was in many ways a secret man. Not because he had so much to hide – of course he had to be discreet about some of his work – but because he wanted each of his friends to feel that he was singular and most important to him.

Umberto Colombo's work for the OECD in Paris was one of his numerous activities, a small part of his overall work, yet it seemed to us in the Organisation that his presence was permanent and his impact far-reaching. I am honouring him not only for what he did for the OECD but because he was a true friend. He was for me a guide and teacher and occasionally a protector when I needed one.

Umberto's active cooperation with the OECD lasted at least thirty years, from 1967 or 1968, as far as I could ascertain, to as recently as 1998. No outside expert of similar calibre was probably ever associated with the OECD for so long. The famous ones – Nobel laureates, former cabinet ministers etc. - come once or twice and are never seen again, the smaller ones hang on for a few years and then disappear. Not so Umberto. He liked the drive, the innovative spirit and the commitment of some of the staff, but more importantly, the OECD was for a long time one of the main platforms where he could exchange unconventional ideas, articulate important global concerns and spread his thoughts across the wider world. Also, the multi-disciplinary nature of the OECD appealed to Umberto because his own interests were universal, and his erudition in widely divergent fields was impressive.

I cannot speak of his scientific achievements – more competent persons will do that. But let me mention his knowledge of history and politics, of the arts, of theatre, literature and music, his gallantry, and last but not least, his detailed expertise in the food and wines of every province of Italy. Umberto was a Renaissance man, one of the last. He could guide an OECD group through the painting collection in the reserves of the Uffizi Museum in Florence, and another time and with equal expertise, explain the fine details of Sienese cuisine.

The three decades during which Umberto inspired OECD work were years of great historic change and global ruptures. The period began with student revolts across the West, the onset of profound scientific, technological and economic changes, the Vietnam War and a first Middle East war, all of which would continue to reverberate throughout a generation. The middle years of the period saw the Cold War reach a new climax, a second Middle East war with far-reaching energy and economic consequences, and continued tensions in the Atlantic alliance. The last of the three decades saw the collapse of the Soviet empire, the creation of new international bodies which would begin to sap the influence of the OECD, economic globalisation with its new opportunities and problems, the emergence of climate change as a burning political issue, and the slow transfer of global power to Asia, particularly China.

The OECD's work reflected all these trends, and Umberto Colombo was one of their keenest and best informed observers. He foresaw many events and problems before others. He wanted to anticipate and influence them, encourage the positive and cope with the negative outcomes, and use the OECD for this purpose. To the OECD he was precious because senior scientists with solid industrial and political experience, public commitment and wide international connections are rare and not easily available to international organisations. They tend to pursue other careers. Margaret Thatcher is one of these, and so is Chancellor Merkel of Germany – both began their careers as scientists though their political and social philosophies were of course, quite different from those of Umberto.

Umberto Colombo forged a first link with the OECD probably in 1967 or 1968 when he contributed to a study on materials research and related policies. His most outstanding contribution began soon after in 1969. In this year, the Director of Scientific Affairs Alexander King and the science policy head Jean-Jacques Salomon appointed an expert group under the Harvard physicist Harvey Brooks. We commissioned a report on the broader roles of science. Umberto Colombo was invited to join this group as research director of the Montedison Company because he was already known as an unorthodox thinker. In 1971 this group published a small booklet under the title "Science, Growth and Society", the "Brooks Report" that became famous across the OECD area. It also became a watershed in OECD history and guided the work of the science directorate for decades. It was a revelation for many and a scandal for some. For the first time, a body inside the Organisation postulated officially and in a detailed and compelling fashion that economic growth could not be the only objective of our societies nor the only purpose in our life. The report stated that science had social – we then coined the term "societal" – consequences and that scientists had responsibilities widely beyond the narrow confines of academia and research. It said further that the environment was in danger and that environmental destruction was closely linked to the whole trend of our civilization. The report called for the integration of social, economic and science policies which so far were developing in isolation, for technology assessment and social science research, and also for much greater efforts in education and training as a collective need. In 1971 this was a bold and non-conformist report, particularly in an organisation whose main if not only official objective was economic growth.

Umberto made an enormous contribution to it. He argued strongly that science was not innocent and that environmental protection had to become a priority. Governments took note that the critique of science was now not coming from fringe-groups but from inside established science itself, and that the warning of environmental destruction was coming from the top of one of the largest chemical companies of the Western world. Among the experts, Umberto Colombo became the star of the day through his originality, the strength of his convictions and the power of his speech. The science directorate had established itself as OECD's acknowledged and indispensable trouble-maker, the "court jester" if you like. Umberto became its external and internal "grey eminence" as well as its international spokesman. Not surprisingly, the governments of the OECD appointed him in 1971 Chairman of the *OECD Committee of Scientific and Technological Policy (CSTP)*. The CSTP is composed of government representatives who supervise the work of the Secretariat and convey the results back to higher government levels. He stayed in this position until 1975, followed up on the proposals of the Brooks report, helped shaping the agenda of governments and inspired the work of the secretariat.

The opportunity for critical scientific and technological policy advice and intervention arose soon enough. Two years into Umberto's stewardship of the CSTP, in 1973, the next Middle East war, the oil embargo and a recession triggered a major crisis. These events spawned a

large number of OECD activities. The CSTP participated with two important studies. One examined the new conditions of technical change and economic policy; the other reviewed the energy crisis. The book “Technical Change and Economic Policy – Science and Technology in the New Social and Economic Context” addressed the most pressing economic difficulties of the day. This report went once more against the prevailing orthodoxy of economic policy makers. But it made its way and had a perceptible influence on economic thought and policy across the OECD area. And – no surprise – Umberto was an essential and prominent co-author. The report warned against the illusion that all economic problems of the time - slow growth, inflation, unemployment - were simply the result of the oil shock and would go away as soon as oil became cheap again. There were deeper, long-term forces at work which the report attempted to identify. These were linked to technology and productivity and also the lack of cohesion between science, technology and economic policy. The book was probably the first to state that Western economies were entering a period of “jobless growth”, that is that growth might start again but without creating new employment. What was a condemned heresy at the time has since become a common place.

An other major CSTP contribution of these troubled years was the report “Energy R&D”, published already in 1975. Umberto Colombo chaired the experts and the OECD staff who wrote this report. At this time everybody was mesmerized by the apparently unstoppable rise of power of the oil producers, and Europe hurried to re-shape its Middle East policies to show its respect for the new powers. This OECD report was, as far as I can see, the first and only official international statement telling the industrialised countries that R&D was their best instrument to deal with the energy problem in the long term, and that they could regain their independence through science and technology. The report reviewed all energy sources – fossil fuels, nuclear energy, unconventional energies – and pointed to their enormous potential. In his foreword, Umberto confirmed his unbroken belief in science and technology but also in the need for appropriate policies. He mentioned that the energy crisis:was changing the international balance of power but also said that these changes “ultimately may not all be in favour of the major oil exporters of today”. His premonitory sentence passed unnoticed, and the international community took little note of our book. Today, more than 30 years later, we all face the consequences of their neglect.

Although Umberto left the CSTP Chair in 1975, his interest in our work was not diminished. Whoever opened a window to the future caught his eye and could count on his support. In 1979-80, we in the Secretariat proposed to Member countries to review the potential of a new technology that had begun to excite scientific circles: biotechnology. The CSTP, conservative and recalcitrant as usual, had doubts, but we were finally allowed to go ahead. By instinct, the chemists of the early 1980s hated biotechnology because they suspected that the new miracle science would one day push them off the cliff – which is exactly what it has done since then. But Colombo had long ceased to be only a chemist. He was a visionary. In 1985, he chaired the first OECD workshop on “Biotechnology- Economic and Wider Impacts” in – of all places – Castel Gandolfo. Not only did he chair it, he also paid for it with money from ENEA of which he then was President. This workshop led in 1989 to a publication that put the expected diffusion of biotechnology in parallel to the ongoing diffusion of information technologies. It showed that new, pervasive technologies usually need approximately 30 years to replace old technologies. This book came just in time. In the OECD, voices that called biotechnology a useless waste of time that should be thrown out of the science policy programme became louder by the day, and outside the OECD, unfulfilled and unrealistic short-term expectations were turning into cynicism: “biotechnology: the eternal promise”. Castel Gandolfo did a miracle and Umberto became one of our saviours. The OECD has had flourishing projects on the economic impacts of biotech ever since, to this very day.

By the way, as I had to pass through Rome to go to Castel Gandolfo, Umberto dispatched me to the Vatican to see the Permanent Secretary of the Pontifical Academy of Sciences and reassure him, and through him His Holiness the Pope that biotech could have many beneficial effects. Umberto had open doors everywhere. In the Vatican of course, but he was also a close personal friend of the Chief Rabbi of Rome and Italy, Rabbi Elio Toaff. True Renaissance men have always been ecumenical.

During the same years, Umberto participated in other OECD work. Let me just mention a review of innovation policies of France in 1986 where he was one of the main examiners and authors.

During the last decade of his involvement with the OECD, the 1990s, Umberto was again attracted by activities that dealt with critical global concerns, such as sustainability and climate change. He corresponded and cooperated with the head of an OECD programme called “Futures”. His interests were wide-ranging: sustainable cities, social cohesion, the impending water crisis, Amazon deforestation, and more and more, the future of China. He also cooperated with the “OECD Megascience Forum”, which was promoting international cooperation in large-scale research projects of global importance. In 1998, as former Italian Minister of Universities, Science and Technology, he attended an OECD Megascience “Workshop on Global Scale Issues”. He delivered a remarkable speech on “strengthening the interaction between science and policy-making”. It was his swan-song for the OECD. He focussed on global climate change and cautiously welcomed the Kyoto Protocol, but without the naïve and uninformed enthusiasm of so many others. He saw the problems ahead. The experience of a life-time had made him philosophical about politicians as well as scientists. He had been both and knew them like he knew the two pockets of his own vest: “It is important to realise how much politicians can be confused by the experts...Scientists are human too, with their own beliefs, and at times, prejudices.” There is no absolute scientific truth that politicians can trust, but the search for truth must continue, unabated.

I said at the beginning that Umberto Colombo did a lot in a short life-time. I was wrong. His life-time was long, very long because he did in one day or one year what most of us do in three, if ever. And this is why the beneficial influence of his strong mind and life-long struggles will last widely beyond his own life-time.