

'The atom in the service of industry' from 24 Ore (7 March 1954)

Caption: On 7 March 1954, the Italian daily newspaper 24 ore comments on the American President Dwight D. Eisenhower's proposal to establish an atomic bank open to all nations that wish to carry out research into the peaceful use of nuclear energy.

Source: 24 ore. 07.03.1954. [s.l.]. "L'atomo al servizio dell'industria".

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The atom in the service of industry

The need to build a reactor

We do not know for certain, nor can we predict, what attitude Russia will adopt to the project of an atom pool presented by President Eisenhower to the United Nations General Assembly. He proposed a world-wide experiment in which the various states possessing fissionable material would hand over part of it to a special international 'atom bank' so that scientists of all nations could experiment on and develop the potential for the peaceful use of atomic energy. This proposal was, at the same time, an attempt to 'lure' Russia and induce it to negotiate on the burning issue of the atom. But quite apart from the significance and political import of the proposal, it was and still is one of outstanding economic importance. So much so that Sterling Cole, Chairman of the Joint Congressional Committee on Atomic Energy, recently stated that were Russia to abstain unequivocally from the proposed pool, this would not be a veto excluding other nations that wished to participate. He added that, for the purposes of the plan, with or without Russia Western Europe should have prior claims and that Congress would oppose limiting the plan to countries of the Middle and Far East.

The era of peaceful applications of the atom has arrived, then, and developments are unstoppable. Realities are the most effective guarantee of progress. 'The future demand for electrical energy will render the pool inevitable', stated Walker Cisler, Chairman of the Atomic Industrial Forum. Reserves of conventional fuels are slowly but inexorably running out. Economically viable hydroelectric resources are dangerously depleted in many countries, such as Italy. At the same time, electricity production in industrial countries is well known to be growing twofold every 10 years, whilst the world population is also multiplying so fast that, at the present rate of increase, it will double in about a century.

Mr Cisler emphasised the particular importance of electricity produced from fissionable material for those areas of the world where coal, oil and water resources are scarce and the cost of electricity production correspondingly high. One noteworthy effect of using fissionable material will be to balance and, in the long term, reduce the cost of electricity all over the world. According to estimates by the American Atomic Energy Commission, one kilogram of uranium 235, which corresponds, in terms of energy, to approximately 3 000 tonnes of coal, costs about 18 000 dollars. It is as if coal were to cost 6 dollars a tonne.

These are the prospects, and at some point in the future the atom will help to solve the problem of finding an ever greater variety of energy sources to cope with the continuous increase in consumption. Italy must prepare for the future. The press has rightly stressed the importance of building the synchrotron. But even greater importance should be attached to the urgent need to build a reactor that will pave our way to practical applications, an area in which we are lagging well behind. The CISE research centre [Centro Informazioni Studi ed Esperienze SpA], set up in Milan as long ago as 1947 by academics and industrial organisations, has served as a stimulus to nuclear physics studies and research, setting itself the fundamental aim of building a reactor.

We must come to a decision. It would be dangerous were we still to be in our current state of inferiority and unpreparedness once the atomic pool becomes a reality. We cannot and must not languish in idle torpor and just wait for manna to fall from heaven. Rather, we have to prepare ourselves and get ready to make immediate use with our own resources of whatever is made available to mankind. In the United States, the need to relax the current restrictions of the law on atomic energy is already being voiced, both to give private enterprise the opportunity to involve itself forthwith in the peaceful use of the atom and to build a coherent legislative foundation for Eisenhower's plan.

Some time ago, it was announced that funds were to be allocated towards the cost of building a reactor in Italy. Let us hope that the new government will face this urgent issue and take the decisions that will support the efforts by the private sector, thus establishing effective cooperation between the state and private enterprise. In this way, we shall emerge from our present state of inferiority and be spared the dubious honour of serving as a mere tail light in the atomic race.