

afford to develop internally all the competence it needs to discharge its responsibilities effectively. . . . It is inevitable that the interdependence of all areas of science and technology should generate a demand for planning of the federal technical enterprise as a whole.<sup>23</sup>

This growing interdependence cannot be effectively handled by isolated science policies unless agencies agree to consult with each other and to co-ordinate their activities. But co-ordination is hardly compatible with self-sufficiency and although there is a lot of talk about it, it is seldom practised—again, because of a conflict of interest. Co-ordination is in the public interest, but self-sufficiency is to the advantage of individual agencies and when it prevails, interdependence is ignored and undesirable duplication becomes inevitable. This assessment is also confirmed by the evidence presented to the Committee.

5. *Government research agencies are more likely to be defensive than self-critical; why should they differ from other institutions?*

But the absence of self-criticism is not conducive to good management and it cannot easily be righted by Polanyi's "independent self-co-ordinated initiatives." That is why, for instance, these organizations tend to lose sight of their initial missions as the years go by. As Harvey Brooks writes: "What starts as a hothouse plant often grows into a rampaging weed."<sup>14</sup> A. M. Weinberg, the director of the Oak Ridge National Laboratory, offers an astute observation:

If the government makes a commitment of support to its laboratories as institutions and delegates to the management the responsibility of allocating resources within the institution, it is natural that as the laboratory loses its sense of mission, the management will ensure survival of the institution by drifting into basic research. I believe that this is a phenomenon which one can see in government laboratories in many parts of the world. This drift toward basic research in a mission-oriented laboratory, if allowed to proceed unchecked, could destroy the laboratory's taste and capacity for getting on with practical missions.<sup>25</sup>

Another aspect of this internal management problem is the reluctance of agencies to cut programs that have failed or lost their priority. This weakness has been underlined by the Science Council:

Yet another problem in the development of science in Canada is the tendency of organizations whose missions have been realized or which have demonstrably failed to reach their objectives, to follow programs which are diffuse