

On Power and Reason¹

Some revelations of afterthought

By Stephan Schwarz (Fil.Dr., Docent)

Power has its reasons that reason does not know²

0. Objectives

Drawing on experience, it is argued that organizations with a strictly hierarchic structure and little horizontal interaction, co-ordination and control, are at risk that managers pursue private agenda at odds with the organization's interests and resulting in destruction of resources. The account points at the need for a retaliation-safe "whistle blower" order – perhaps mediated by an Ombudsman accepted by the management and the Staff Association - and that steering committees take more seriously their role of constructive critical evaluation. The account is not without a measure of grotesque and absurd humour, akin to that cultivated by writers like Strindberg, Kafka, Ionesco, Beckett and Dario Fo.

It is correct that most of the events described date back some 25 years, but there is evidence that the infrastructure and the "culture" of the organization have not changed much, and these are the main factors for enabling (or preventing) the growth of private agenda described in this essay.

Note: To avoid mentioning names, agents have been referred to by their position, with the exception of a key individual who held a succession of positions and is here referred to as "X" to avoid ambiguity.

Acronyms: AS=Administrative Support Division (CERN); DG=CERN Director General; ILS= Integrated Library Management System; SLAC=Stanford Linear Accelerator Laboratory; SPIRES= Stanford Physics Information REtrieval System; TH= Theory Division (CERN)

1. Preamble: the "Laboratory culture"

In Monteverdi's opera *The Coronation of Poppea*, Seneca – having just been ordered by Nero to commit suicide – says to his disciples that "when reason is challenged by power, power will prevail". At first sight this looks like a wise epigram, but it is really an oversimplification that invites misinterpretation. Just as the heart has its reasons, power does – the reasons that serve the objectives of power.

An area that has attracted little attention from the Research Ethics point of view is the functioning of the Social System of Science. The focus is typically on supposed fraud in

¹ Keywords: CERN, anti-Semitism, Integrated Library Systems (ILS), High Energy Physics (HEP), responsibility in decision-making, project evaluation, whistle blowing, Ombudsman

² Paraphrase of Blaise Pascal's famous diaphore:

The heart has its reasons that reason does not know (Pensées Art. IV, no. 277)

scientific work, appropriation of ideas or results, or bias connected to external interests on one hand, and moral considerations related to choice of programs or methods of research on the other. However, as in any organization, the way things are managed in a Research Organization (politics, finances, programs, human resources) all have a moral content, and success for an organization or an individual can sometimes turn out to be funded on operations that are not compatible with normal moral standards (of fairness, honesty, decency, civil courage, etc.) in society at large – which Judge Halphen calls “le code de déontologie”, in extreme cases even illegal. Most organizations have developed an internal codex which includes strong conditioning against “whistle blowing”. An observer who tries to understand what is regarded as good or acceptable practice and which factors are at play in internal power games, will end up in a *cul de sac* in terms of reference to “the organization’s culture”.

In the private sector, one might maintain, the ethics of management is the business of the management and the employees (who can decide to leave or - if they have no adequate alternative, have to align to the situation) and of the shareholders (who can sell their shares). When the organization is dependent on public funds (taxpayers’ money, in the American idiom), the matter is different. It is in public interest that the excesses of organizational “cultures”, including scientific ones, are curtailed by a requirement of transparency and efficient control that funds are not wasted and that what is presented as being “in the interest of the organization” does not mask other interests. For example, it is not in the public interest that a Machiavellian scientist obstructs the competing project of a colleague less apt in lobbying, nor is it in the public interest that frequent reorganizations are used to kill successful projects simply because they were invented by the predecessor and not here and now.

It is in a study of the growth of this cohesive force which permeates the system and the community – *the laboratory culture* - that these moral dimensions can be addressed. This is a fuzzy and intangible concept which covers a kind of ideology demanding uncritical allegiances to the current power structure and its attitudes. It includes rules of conduct, practices, norms, obligations etc., sometimes at odds with their counterparts in society at large, as is the case in other subcultures. The dictum “it is part of the laboratory culture” counts both as an explanation and an admonitory hint not to meddle. Considering the importance and cost of scientific research in modern society, a comprehensive exploration of such laboratory cultures is well justified.

The hierarchical decision making structure and the frequent reorganizations give rise to short-term inter-personal dependences and loyalties. There is an awareness that success and failure are subjective and prone to reassessment in most cases where there is no inter-laboratory consensus. As a consequence, the “laboratory culture” conditions staff on all levels to cope, whenever necessary, with instances of (what they construe as) erratic and irrelevant directives, where they dutifully have to deal with pseudo-problems often inconsistent with good professional practice and against their better judgement. This adaptability makes possible - and is in turn encouraged - by manoeuvring with opaque objectives. In the case reported here, such manoeuvring could include systematic “character assassination” where the ends would justify any means, including devious and outright dishonest/dishonourable ones (e.g. providing the expected answers to leading questions, and false denunciations from colleagues in order to ingratiate themselves with the “leader”) – a process greatly helped by an apparent tradition of acting on hearsay accepted as part of the “laboratory culture”. What is politically opportune will under such conditions depend

more on the hierarchical pecking order than on professional qualifications, resulting in lost opportunities and waste of resources. Recollections are by their nature subjective and of little consequence. But sometimes, as in historiography, intermediary events can reveal coherences and motives that were previously abstruse

In the account presented, the pivotal element in a long "*winter of our discontent*" was the acquisition in 1988, to CERN - a well-known international organization - of a complex software product developed by an Israeli firm. A very thorough market survey pointed at this product, and I could not imagine that - in an organization priding itself with studying nothing less than the origin of the universe - the origin of the selected product would become a matter of bi ority of the most prestigious academic institution in the world, and many national libraries. As the story unfolds, it points at a sinister feature in what is euphemistically called "the organization's culture", a feature related to the rigid hierarchical command lines, the quasi-totalitarian powers of the top management and, in consequence, questionable loyalties and repression of civil courage. tter contention – including both explicit and covert anti-Semitic elements. As it happens, this IT-company, by highly professional developments in phase with new technical advances, soon became a world leader on its market, having in 2019 some 7500 installations including a maj

2. The mission

2.1 Recruitment

It was to a large extent the conversation with the leader of the Theory Division (responsible for the library and the historical archive at the time) that made me accept the offer to join CERN in 1987. I immediately sensed that he was a man with incorruptible integrity, decency and civil courage who would stand up for his values and insights also under pressure. As I soon realized he was one of very few leading personalities who would merit this characterization.

2.2 The Master Plan

To give the necessary background to this case, I have to go back to 1987, when I was recruited to CERN from a very good position as university library director in a major Technical University. My task was specifically to bring the Scientific Information Service (SIS) of CERN up to modern standards of performance. The organizational placement of the unit in a research division gave ideal conditions for planning and implementing a powerful modernization programme adapted to the needs of the international Particle Physics community.

After a month looking closely at the activities and responsibilities, I presented a medium-term development program, which was endorsed by the Division Leader, the Scientific Information Policy Board) and reported to the DG:

- a) Unify all systems and functions within a modern integrated library information system (ILS), with functionalities following international standards. This plan should also include the CERN Historical Archive.
- b) Correspondingly develop staff competence and tasks to meet new requirements and reduce cost
- c) Improve the physical environment, including necessary extension of space

- d) Introduce and develop a full-text database for preprints to be accessed over the computer network, using optical disk storage, an emerging technology successfully applied for example at UN in Geneva, and in the patent field.
- e) Develop an effective co-operation scheme for resource sharing in general, and cost-effective maintenance of common preprints database thus elimination multiple efforts.

The idea was to implement this program within a couple of years, using current information processing technology and systems available on the market. Considering the development rate, the life-time of such systems would be some 10 years. It was not foreseen that, within 15 years the entire scene of scientific publication, storage, processing, access and transmission would change radically, and that this would fundamentally change the role of research libraries.

This was regarded as a bold venture by professional colleagues, and it required a measure of continuity of institutional support for objectives and development plans decided. This, as it turned out, did not lie in the cards. A first memento came when the ILS was just being implemented. The DG surprisingly demanded a reformulation of the Master Plan, without providing any reasons. This was followed by a further request: a comprehensive report on the entire process leading to the choice of an ILS. Both matters were closed by the SIS Board after considerable work, and without any response. But who had diverted the DG's attention to these peripheral administrative issues, that were delegated several steps down the hierarchy? This turned out to be a recurrent crucial question which would provide unexpected insights.

2.3. Working conditions

The working conditions soon turned out to be much more bureaucratic than I had been used to (in Swedish academia and defence research) The organization was strictly hierarchic, with a DG (with almost dictatorial powers), a number of directorates governing divisions, which in turn governed groups. The library *cum* archive, forming the SIS (Scientific Information Services) group was part of the Theory Division, but was soon (regrettably and against massive experience in the profession) moved to the new AS (Administrative Services) division, i.e. out of the research sector. There were separate Steering Committees: one for the Library (called the Scientific Information Policy Board) and one for the Archive, with little interaction except for budget requests. The Organization did not apply program budgeting principles, but separate "materials" and "staff" allocations, with the complication that staff leaving were not easily replaced, while "materials" funds could in principle not be used for short-term manpower engagement - only the Division Leaders could get away with breaking this rule.

(One example of obstacles to rational decision making: In the early days there was only one experienced librarian. When exceptionally a post was opened for external recruitment, I came under pressure from the current DG to discard the unquestionably most competent applicant in favour of the wife of an important ambassador to UN, the situation requiring more intrepidity than I realized when insisting on professional credentials.)

In spite of the formal responsibilities of the Committees, the Division Leader's control of the budgets made the long-term planning vulnerable to erratic changes of opinion. The lack of stability should be compared to, e.g. university projects with external funding, where a grant implies stability for the accepted duration of the project.

To reiterate: the ability to plan and carry out long-term or even medium-term development programs depends on a measure of stability in the Organization and its commitment to decision taken. However, in the period 1987-96 there were 3 DGs, 4 Directors of administration, and 4 Division leaders in control of the SIS group. Not surprisingly, these changes generally implied reorganizations and questioning of ongoing programs.

The **committees** should grant some kind of stability and support of policies and development, also including constructive criticism and follow-up of projects. However, in practice they avoided demanding deadlines and checkpoints and progress reports for projects, thus contributing to the instability, by leaving the scene at the mercy of (often erratic) preferences and ambitions of division leaders and their superiors. Not rarely, they interfered with current activities with little appreciation of efforts and resource needs, confounding minor issues with important ones, and overruling professional analysis. Sometimes implications were seriously counterproductive, sometimes just a waste of resources. Occasionally, proposals could imply infractions to important regulations. And sometimes outright ludicrous suggestions to solve genuine problems were presented (and unquestionably meant seriously). For a case with serious implications, simply due to SIS Board decisions discarding justified professional advice, see Section 5 on the co-operation with SLAC, CERN's homologue in USA.

A case of waste of resources was a request for a comprehensive comparison of the cost-effectiveness of similar library services, with the evident aim (certainly intended to be helpful) to demonstrate the need for budget increase. Having a long experience from national University statistics surveys, I warned that, due to foreseeable difficulties the considerable effort required would prove to be wasted: 1) every service has its institution-dependent profile with widely different emphasis on a wide range of activities; 2) libraries do not systematically record many of the data needed, and data available are rarely standardized and comparable; 3) even if data were there, libraries are reluctant to participate in comparative studies and appear on a list supposed to represent their professional excellence; 4) a similar comparative study had been carried out some years earlier, without providing any useful results; and (most importantly 5) it was from the very beginning evident that the operations of the SLAC library services were both more elaborate, comprehensive, and cost-effective than the operations at CERN. In spite of these arguments, the Board Chairman insisted on having the comparative study carried out – he needed the document in order to argue for budget increases. Although this was certainly done in the best of intentions and “in the interest of the organization”, it was another example of a more general syndrome at CERN, the disposition to overrule without argument the advice of internal professional expertise and to interfere “invasively” in programs already marred by increasing obligations in shrinking budgets. In this case it was strictly against my professional conviction. Actually, the prediction was absolutely correct – the project even

antagonized our main homologue (SLAC), the elaborate questionnaire being welcomed with the characterization “*What a bin!*” which according to the Chambers Dictionary means “*a container of rubbish*”.

Considering the project history, this insult should have been aimed at the Board Chairman - I was not in the mood of enjoying the role of scapegoat. Or was this role again a manifestation of “the culture”? A prominent CERN Director, who happened also to be a nice fellow, had shared an experience with me: “*If you have success your superiors will take the credit, and if you fail – for whatever reason - you must take the beating!*”

Finally, an example of the third category: At CERN the library was always open, which was practical for users, but resulted in massive “loss” of material. This problem has largely disappeared with the development of “electronic publishing” of periodicals, books and reports (preprints) with access on the Internet. But in those days, the problem was serious. The Committee decided that an anti-theft system should be locked outside working hours, and the main entrance reshaped with a sluice and a detection device. When the device discovered an unauthorized item the culprit would be locked up in the sluice and the security staff alerted. Quite apart from the unthinkable “rescue” service required, the whole idea was of course an infraction to the general security regulations. But the concept, presented as a smart solution, was of course useless, but a good example of the “culture”. Alternatively, the system would trigger a photo equipment (presumably catching the culprit’s face and the title page(s) of the object(s) being abducted for subsequent interrogation and punishment. The idea was obviously entirely impracticable technically, but a market study was requested and it was regarded a failure that nothing was found that would meet the specifications.

2.4 Fragments from the Laboratory Culture

The rhetoric used by AS division leaders was not courteous. If the Chairman of the Board had raised a question or expressed an opinion not conform to expectations, he would, even in formal group leader meetings, be referred to as “an old woman”, or I will squeeze his balls” at best the verdict would be “he may be a good physicist but he is a lousy manager”. But there are examples attitudes that are more telling about the “culture”.

2.4.1. “The nine nuts”

There was at CERN a group called “the nine”, created by a prominent TH Division Leader who saw the need for a forum with close links to the top management and with the objectives to collect, discuss and bring to attention important matters of the “laboratory culture” not normally considered by the staff association or outside its realm. This was indeed a form of “whistle blower” order granting legal protection, but not easily compatible with the organization’s principles. Members were to be elected by a lab-wide referendum and candidatures were solicited. After having called the group “*the nine nuts*” in a regular group leaders’ meeting, the current division leader exhorted that the division had an “official candidate” and that no alternative candidatures from within the division would be tolerated – a statement that was of course not mentioned in the minutes. As I had been asked by the organizers of the referendum to stand as a candidate, I was- in a Group Leaders’ meeting -reprimanded for not having obeyed an order (which I admittedly had not perceived as not being meant seriously). Obviously it was

regarded as a normal feature of “the culture” for “leaders” to interfere with referenda by ordering staff how to vote. Strange interpretation of democratic principles!. The reprimand was not entered to the minutes – for obvious reasons. But the regards of those present made me think of Tom Sawyer asking for more porridge: beware of code-breaking behaviour.

2.4.2. “You have a lot to learn”

There was at CERN a middle-aged engineer, who was difficult as an employee, ill at ease in his job situation, and often writing letters to the management with various unacceptable demands. He had been taken out of his engineering group and placed in SIS to be engaged in whatever jobs we might provide. In this new environment he actually did a lot of useful manual work, although it might be questioned if it corresponded to his salary (a question that could be raised in many cases, though). He had some health problems which caused him pain in the mornings, so that we had agreed to allow him some flexibility in the mornings, if his presence complied with the official number of working hours. However, somewhere in the organization, patience with his idiosyncrasies ran out, and it was decided to dismiss him. In this process, the evaluation board set up for this case considered it to be problematic that, in the last annual personnel review, I had provided a rather positive report, mentioning that he seemed to be reasonably well adapted in my group, and did perform reasonably. One afternoon, when I had a meeting on a different matter with an officer from the personnel division (who became witness to my part of the conversation) the Division Leader (X) called me on the telephone – I happened to have a witness in my office - requesting that I should withdraw the positive statement, replacing it with a negative one, in particular stating that the fellow did not keep his working hours. I explained the case and the agreement, and got instructed not to mention it, but only to state the late arrivals in mornings. This I could not accept as responsible, nor decent, but I told X that in this case, as in several others, he could just overrule my opinion on his own responsibility. X was furious and closed the conversation in a threatening and insulting tone by saying “*You have a lot to learn*”.

The message was clear. It was thought both normal and justified that a middle manager’s conscientious judgment of staff performance could be overruled by whatever upcoming interests of the Organization allegedly demanded. He can thus be ordered to change his judgment to a dictated statement suiting “the interests of the Organization”, even if this act is (felt to be) dishonest, irresponsible and opportunistic. An individual objecting to such an order will inevitably, with military logic, be classified as “one who does not co-operate”. It must be noted that this technique provides a cheap way to get the upper hand, since it rarely happens that there would be asked justification for that stigmatic label.³ One must be excused for recalling the exclamation “*Führer befiel, wir folgen*”. The Romans said *nomen est omen* – is there a signal in the CERN title “leader” for the heads of organizational units at CERN?

When the case was to be examined by an Evaluation Board, I was interviewed by one member concerning my statement. I had thought that the *raison d’être* of the Board should be exactly to protect objectivity and to reject any lobbying. So I gave an account of the telephone incident. I could not perceive any surprise or vexation. I thought it possible that the Board also had been informed about the interests of the Organization and the preferred outcome of its deliberations. But I had had expected some reaction to my account which, in

³ A cognate technique is to ask leading questions, making it understood to the respondent which answers are expected in order to elude being characterized as “one who does not co-operate.”

a perspective of management ethics, was a flagrant attempt to influence a witness by intimidation, under aggravating circumstances due to the dependence of the witness. Actually, I never heard from the Board again. But I later understood that the person had been fired. Perhaps the Board agreed with the opinion “that I had a lot to learn”?

Indeed I had learnt an important lesson about management ethics: It is conventional wisdom that power corrupts. Not only those who exert power but also those who are subjected to power. To survive in a domain of unbridled power, one’s rational insights and honest convictions have to be given up to align to the reason of power – alignment implies submission, not only intellectually but morally.⁴

3. The Integrated Library management System (ILS)

In the mid-80s a trend in academic library management was the implementation of an ILS (Integrated Library Management System) uniting all processes (cataloguing, acquisition, loans, and links to external resources). There was a wilderness (to use a Shakespearean term) of more or less comprehensive systems on the market, partly originating in universities or consortia, partly specialized companies. As predictable, there were mergers, delays of commitments, non-realized specifications and withdrawals, so investment was a risky business.

Neither CERN nor SLAC had moved to an ILS. The SLAC catalogue was run on SPIRES (a text retrieval program developed in-house, while CERN used CDC-ISIS, a software package developed at UNCO primarily for use in small libraries in developing countries.⁵ An important consideration was that, at a point where radical modernization was planned, there was always resistance from part of the staff (habits, fear of insufficient competence, lack of experience, outlook and foresight) which has to be addressed in the preparatory and implementation stages. The standard procedure from university environments was followed in the selection process. A detailed specification was produced after lengthy internal discussions. Several vendors were invited and demonstrations were carried out, e.g. at WHO (where the system URICA, produced by McDonnell-Douglas Computer Systems, also installed at other UN sites). Important restrictions were imposed by current CERN policies on serviceable brands – IBM and DEC were permitted, while some others were clearly not allowed, thereby excluding several of the systems on the market. An important factor was financial –most of the systems established on the market were much to expensive.

As there was no technical expertise among staff we were fortunate in establishing co-operation with the very experienced library systems team of the Technical University of Denmark, where in-house developments had been ongoing for two decades. Finally, the ALEPH system (marketed by the firm ExLibris) was judged to be most promising with respect to existing functionalities, development plans, responsiveness to user requests, and

⁴ For a study of this process, see S. Schwarz: *Defending Alignment: Mimetics, Rationalization, and Rhetoric Fallacies among Physicists in the Third Reich* (*SAGE Open* (May 2016) pp. 1-15) <https://doi.org/10.1177/2158244016643565>

⁵ For SPIRES and CDS-ISIS see Wikipedia articles.

cost. The system, originating in the Hebrew University in Jerusalem, thus not coming from a CERN member state, was nonetheless approved officially, after recommendations from the Board and the current Division Leader. This was still in the beginning of the period described, so we were fortunate to be able to recruit an experienced systems expert from DTU (Copenhagen), and we were joined by a French IT student (who became an indispensable expert on ALEPH) and a Chinese visitor, who, returning to Beijing, held a position as professor at ISTIC (The Institute for Scientific and Technical Information of China)

The choice might have seemed daring, but it was simply the outcome of solid professional judgment and experience. Indeed, the system and its successors and extensions with applications of emerging information technologies, had remarkable success in academia – in 2019 there are 7500 installations, including major universities and national libraries. Recent additions announced are ETH (Zürich) with its associated library consortium, and the entire Norwegian research library consortium. In the perspective of this development, one can to-day afford a sarcastic smile at the concerted effort to discredit the selected product - efforts which, at the time, were clearly destructive in intent with their obtrusive flavour.

4. Examples of not very helpful incidents:

4.1 Computer support refused.

The computer centre normally would provide computer support as required by approved activities on campus. This had also been the case for the systems used by SIS, for example the CDS-ISIS system from UNESCO. However, when approached in the case of the ExLibris programs, support was refused (by the unit for administrative system, led by X) with *the unqualified but dramatic assertion that these programs could invade and destroy the entire computer installation of the laboratory*. Therefore we had to house and maintain a dedicated small computer in the library premises, which gave rise to constant problems that could easily have been avoided with the regular support expected.

4.2 The HEP meeting incident

In an effort to improve co-operation in the preprints management I had arranged a meeting of relevant information services in Geneva. The results were meagre, as the only opening meant joining the SPIRES consortium, which had been turned down by the SIS Board. In the course of the meeting, the leader of the SLAC delegation contacted the relevant CERN director with unspecific complaints about the Aleph system, *nota bene* without talking about the matter with me in the first place. Since there was no substance to the complaints, the obvious purpose was to vilify our efforts and to plant doubts about their professional validity. I found the approach a bad sport, but it also was beside the point: The main reproach towards our service was (as will be evident in section 5) the old disaccord about preprints management.

4.3 The critical review incident

Shortly later it was decided on a high level that the activities of SIS, and in particular the Aleph system, should be evaluated by external consultants – the minor matter of a library system had become “political”, being regarded as an affront against the ambitions for SPIRES, although our joining the SPIRES consortium had been explicitly rejected by the SIS Board, and although SPIRES anyway was not an ILS. The insistence on an external review was strange, since I had been hired only two years earlier precisely to evaluate the activities and come up with a modernization plan, and we had barely completed a first phase of the modernization program - so it seemed premature and hardly reasonable at the time. There would also seem to be other activities in the administrative sector that might benefit from an evaluation, but these seemed to be protected in the current power distribution. So two competent consultants, one from France (the director of the library school in Lyon) and one from UK (a director of the British Library consultancy service) were engaged. They visited SIS for a few days but did not co-ordinate their reports. No important strategic suggestions for change of services or optimal use of resources for services and development were provided, nor was there any serious criticism that would require particular corrective action. There was no attempt at evaluation of the library systems selection process or the system selected – which was the main purpose of the consultancy exercise. Probably the consultants realized that a valid evaluation would have brought the consultancy efforts far beyond the contract (which was at about 10k CHF each). The reports anyway approved of the activities and plans. They also recommended a different staff profile, considerably strengthening the professional part.

Every administrator knows that external evaluations can be used both to further and to discredit a project, by adequately defining the mandate supplemented by informal (i.e. oral and undocumented) instructions. The outcome may have been a disappointment to the instigator of the evaluation. Later incidents, some quite elaborate, were more carefully designed to achieve their purpose. Again, the question was: who was the instigator of this evaluation? At this stage, there was good reason to look towards the IT-group leader X.

4.4 The User Group meeting incident

Shortly after the first installation of the Aleph system, we had arranged an Aleph users’ meeting to discuss priorities for further developments. A dozen organizations were represented. It is well known that such groups are formed to push for desiderata of evolution of the product. We had specific ideas, based on long experience in university libraries, ideas indeed welcomed by the Aleph designers. During the meeting I was called to the Division Leader’s office, where I was met also by X. I was bluntly instructed not to accept chairmanship of the users’ group for the following year, thus the responsibility for planning the following meeting.. The instruction, which apparently was not for discussion concerning pros and cons, was surprising, since it was clearly in the division leader’s interest that the installation of the Aleph system should become a success. The only justification given was that *the Israelis should not make profits on their contact with CERN*. It struck me that the instruction was probably not the division leader’s own idea, and that he was under pressure from X. Actually, it soon became evident that he, in matters of IT-support to the library, was not able to demand (from his IT-support group leader), proper

management of support requests that had been decided, with expected detailed objectives, time schedules, checkpoints and firm delivery dates (see also section 8). Within few years, he would see himself replaced by X under conspicuously humiliating conditions. Some years later X (now Division Leader) refused an important visit by the main architect of Aleph to work on some CERN-related developments, with the assertion that *the Israelis always demand more than the value of their work*. This was a Freudian slip that illuminated several incidents that had the same “flavour” and generally went against the original “Master Plan.”

4.5 The NeXT incident

In the course of a meeting on computer applications (remembered perhaps mainly for a night cruise on Lake Lemman with the CERN jazz group “Wolfram and the Werewolves”) the same chief architect of Aleph had been asked to present the first operational WWW interface to a library system – a prospect that should have been encouraged by CERN although it was before the great breakthrough of WWW. For this purpose we had negotiated to use a NeXT-computer owned by X’s group. As we went for the demonstration, it was announced (with ill-concealed Schadenfreude⁶) by the IT-group that the computer had been destroyed. It was implied that here was the evidence justifying the initial refusal by the computer centre to host the Aleph programs. The cause, which was soon discovered, was that the British student normally using the computer, had been instructed secretly to take out the program for rebooting – an unusual action which no one would imagine might be the problem encountered - and to take a leave for the day so that he would be out of the way. This event may look like a practical joke, but it was no doubt maliciously designed.

There was no support for subsequently installing a WWW-interface for CERN’s Aleph system, but a member of Tim Berners-Lee’s group was hired to do that job at the Technological University of Denmark – the first ILS with WWW-interface.

4.6. “Professional” IT-support

When X eventually became AS Division Leader, he formally, at a meeting of the SIS Board, took responsibility for providing IT support to the SIS projects. The declaration sounds strange, since, this support should of course have been provided all along (see e.g. section 8). The first action was to discontinue the contract of our French IT-student, who had over a couple of years mastered the Aleph programs and was an indispensable resource person in the group.⁷ Instead, the wife of one of Xs CERN friends was engaged, who unfortunately was not able to meet the professional requirements. By an administrative trick, she would seem to be employed by, and receive her remuneration from the ExLibris firm in Israel, the money in reality being transferred from the SIS materials budget. This was not in agreement with the general rules. However, the arrangement would look like an extra charge on the annual support contract, making it look exorbitantly high, and further ExLibris would be

⁶ Strangely, there is no word in English vocabulary that exactly matches this important concept.

⁷ He moved to Copenhagen and immediately became equally valuable in the Aleph team at the Technological University of Denmark.

responsible for the quality of work, although in no position to supervise. ExLibris eventually stepped out of that arrangement.

4.7 “Anything is better”

A last sneer will adequately end this short list of *tracasseries*:

At a Board meeting where my successor (coming from the European University Institute in Fiesole) was presented, JF announced with satisfaction that “*they have an ILS but not Aleph*”. The evident message was that anything is better. Indeed, the institute had a succession of library systems, but subsequently ended up with ExLibris products. The irony of Fate!

5. The High Energy Physics (HEP) bibliography

A special feature of the HEP community was the importance of preprints, i.e. the dissemination of manuscripts more or less ready for publishing, and thus shortcutting the peer review process. From a modest beginning in the mid-1960s, mailing type-written documents, by the mid-1990s the annual contributions approach 20.000. With the technical advances in text production, networking, storage and retrieval (Internet, WWW, arXiv, LaTeX...) preprints processing became an early example of electronic publishing. Already in 1995 it was reported that a fully integrated processing system with access to bibliographical search, citation search full text abstracts and full text papers was in operation with only 24h lead time from submission to accessibility, a remarkable achievement.⁸ When considering the situation in 1987, it was evident that the HEP-database activities at SLAC was greatly superior to those at CERN in terms of content (e.g. citations, keywords), speed, and cost. SLAC had established a dominant position, systematically following a policy of a closely controlled network of associated institutions in many countries providing input in a common format and using the database system SPIRES originally developed by SLAC for the purpose. My suggestion to drop the current effort as wasteful double work, instead joining the SLAC-SPIRES consortium was turned down without any valid arguments by the Board [*The SPIRES-HEP people only co-operate on their own terms; We cannot make ourselves dependent on SLAC; what if SLAC discontinues the production?; CERN is not a SPIRES site; who cares about citation indexing?.....*]. There was an obvious, albeit tacit, element of competition, grating unpleasantly with the official rhetoric.

Only some 15 years later, after several reorganizations and the well-known technological “sea change” just mentioned, there emerged opportunities for successful co-operation (INSPIRE-HEP)⁹

This was one example of how expert knowledge was discarded *a priori* by pseudo-political and counter-productive rationalizations. An adage attributed to Nobel laureate Eugene Wigner comes to mind: “*People do not build their beliefs on a foundation of reason. They begin*

⁸ P.A. Kreitz et al.:The virtual library in action – Collaborative international control of High Energy Physics database (SPIRES_HEP). (<http://www.slac.stanford.edu/spires/find/hep/www?r=SLAC-PUB-7110>)

⁹ WIKIPEDIA: Stanford Physics Information Retrieval System (SPIRES)

with certain beliefs, then find reasons to justify them”¹⁰ – one might add “ignoring the implications!”. As will be evident from the present account, such incidents were *legio*, an element of “the institutional culture” – actually a basis for the instability of strategic decisions.

But I did not give up the idea of closer co-operation. During a visit to SLAC I was asked to present SIS activities, an opportunity to point out the waste of resources through double work and asking for a model where our resources (three full time equivalents of manpower) could be better used than the current duplication of cataloguing, which is a notoriously staff-intensive activity. There was no positive response, which is not surprising considering the stage of developments “in the pipeline” – my best guess, in retrospect, would be that the only way CERN could possibly have contributed to the integrated processing and access system mentioned would be to convert my three FTEs to funds to be transferred – a politically impossible idea.

At the end of my brief presentation I mentioned the space upgrading effort with the new library design (see section 7) where the funding had been reallocated without proper analysis. To make a point, I had a copy of a cartoon (notably of American origin!) which was a clever and entirely innocuous paraphrase of a classical painting like “Venus from Urbino” by Italian renaissance artist Titiano (or similar paintings by Giorgione, Rembrandt, Velasquez, Goya, Ingres, Manet etc.). Hardly had I shown this picture, when one of my SLAC colleagues shouted “take away this picture – it disturbs our feelings!” Although I thought this to be a (poor) joke, I withdrew the picture, believing (mistakenly) that the matter was settled. On my return to Geneva, I wrote a small iconographic note on the matter, which is attached here as appendix.¹¹

There was more to come. I was on the point of travelling to the US in order to collect data for the “comparative study” (see section 2.2) when the SIS Board chairman received a letter from a SLAC director and (as I was told) a minister in a local congregation, which was a vicious and venomous attack *ad personam*. I do not know who else received that letter – I did not (a “cultural” feature I never got used to). I only had one opportunity to briefly glance through the text, since Board Chairman realized that it would not be reasonable to consider the matter at all if I (being the inculcated party) did not even know what it was about. DL declared that all staff at the SLAC library unit had unanimously¹² declared that I am “characteristically rude, arrogant and demanding”. The most important word is “characteristically”. It seems innocent in the context of the derogative appellatives, but is really a sophisticated expression of armchair anti-Semitism. Characteristic for what?, whose character is described? Is it the typical character of a certain group? Imagine, as a thought experiment, a Stanford professor writing, in a letter to a friend in Cambridge: “I

¹⁰ I. Hargittai: *The Martians of Science – Five physicists who changed the twentieth century* (Oxford. Oxford Unni, Press, 2006, p. 248)

¹¹ S. Schwarz: *America, America* (unpublished note, included here as appendix)

¹² One should always beware of reports on such “unanimous” opinions. In most cases they are not literally true. But they are rhetorically effective, and the orator rarely will be asked to expound (cf. note 3).

was invited for dinner by our colleague McIntosh from Glasgow – the meal was characteristically poor!”. The phrase expresses a proverbial unflattering idea, entirely due to the word “characteristically”.

This of course was an unprecedented attack on a higher-grade employee of a sister organization, behind his back, without any justification or evidence, referring to anonymous (collective) and unspecified denunciations. To the best of my knowledge I had never met the man. It is understood since antiquity that *ad personam* invectives are not consistent with civilized settlement of contentions. I found this intervention particularly and characteristically (sic!) indecent and calculating, since the author in cold blood (and correctly, as it turned out) assumed that the addressees would not dare to request valid evidence explaining the outburst. This was some 20 years before Donald Trump changed the rules of verbal interaction in the US. I was indeed surprised that a leading scholar of a highly estimated organization would resort to such base rhetoric and ignore the normal route of direct confrontation. Of course, following the tradition of “the culture”, no motive was provided to explain the aggression. Only after some time I realized that it was the cartoon displayed when referring to my library reconstruction plans. Had this motive been provided, it should have cast ridicule over the affair and its instigator.

My immediate response was that we could define two alternative strategies: Either to ignore the message as private gossip unworthy of consideration, or to see it as an official complaint, in that case to remit it to the Director General. The Board chairman, and the Division Leader (X) were more complaisant, almost obsequiously reverent. The SLAC Director, it was said, had “immense power and influence”. I apparently had caused a political storm with unforeseeable consequences. The matter must be calmed down with utmost discretion and diplomatic tact. The reader might ask why my “leaders” did not perceive a moral imperative to request a reason – “justification” for the outrage being inconceivable. But such questions miss the point, which is that *Power has its reasons that reason does not know*. We are faced with a well-known expression of human frailty, the fear of antagonizing the autocratic leader by asking questions, rather than eluding one’s responsibility by the sanctimonious and falsely reassuring expression “*he surely must have a good reason*”. This dilemma is pointedly described in a famous scene in Shakespeare’s Richard III.¹³ For X’s inaction there is a further “reason” – the case could be used as welcome support of actively pursued hidden agenda.

¹³ Hastings: *If they have done this deed, my noble Lord...*

Richard: *Talkst thou to me of ifs? Thou art a traitor.*

Off with his head; now by Saint Paul I swear

I will not dine until I see the same. (Richard III:3.4)

Hastings had not admitted any offense, but the Major then, ingratiatingly, declares

Major: *Your Grace’s words shall serve*

As well as I had seen and heard him speak (Richard III:3.5)

Note the significantly insulting “thou” (rather than “you”) used by Richard in addressing Hastings (See J. Shapiro: *1606 - William Shakespeare and the year of Lear* (London: Faber&Faber 2015, p. 70).

6. The Historical Archive

The Archive had been formed in 1979 to collect and make available documents of interest for the history of the Organization and its activities. From the beginning it was staffed by an academic and an assistant. The Archive was essentially a deposit for material registered as blocks of documents, with little detail on contents. For cataloguing, a very simple retrieval program had been obtained from Geneva University. The Archive Catalogue was the first file set up under the general library system Aleph. As it was not compatible with international standards for archives, considerable effort had to be spent on converting and correcting the records to meet minimal professional requirements for description of the collections, also paving the way for more comprehensive description of the contents, and for links to a future full-text depository of selected material.

One day I received, from the archive assistant, a viciously aggressive anti-Semitic letter (also sent *inter alia* to the Division Leader JE in charge of SIS). The letter was an *ad personam* attack on me, on the development plan (which had been endorsed right up to the DG), and on the Israeli firm ExLibris marketing the Aleph system. The author was obviously well versed with the most vulgar anti-Semitic vernacular and clichés, but there were indications that the signatory had not himself wielded the pen. My first reaction was to bring the matter to court as a libel case with anti-Semitic motives. But it was likely that comments in the press would entail embarrassment to CERN. So I abstained from a legal procedure (which in retrospect I consider was a mistake), and instead discussed the matter with the current TH Division Leader, who handled it with firm determination. The result was that the fellow had to leave the organization and the matter could be closed. The person found by internal recruitment as replacement soon returned her original position. Then for years all my efforts to get a replacement were rejected until, returning from a holiday leave, I found that the current AS division leader (X) had engaged, without the normal evaluation, a visiting physicist's wife who was looking for a job, by using a considerable part of the library's book acquisition budget. As expected, it was assumed that the delay in recruitment was caused by mismanagement on my part, while the acquisition budget downgrading triggered misdirected disapproval from library users.

7. Upgrading premises

The CERN main library was housed in prime space close to the main building. In size it was adequate but space was not efficiently used and it was not very inviting as an environment for study. Large parts of the collections had been moved to two store rooms which were eventually flooded when there was excessive rainfall. In a UNESCO mission I had carried out in Beijing some years earlier, I had co-operated with a professor of architecture at Bath University who was an international authority on library and museum buildings. He accepted my invitation to come to CERN for a week in order to create a suggestion for upgrading the library premises. Indeed he came up with a very interesting design proposal, which was endorsed and funded in due course. It required moving an over-dimensioned photo lab and a small laboratory store, which were both anyway misplaced in prime space. However, the construction work was delayed due to some undocumented in-fighting between division leaders. After some time, the project

was shelved (again without consultation with library management nor with the chairman of the SIS Board, and without a formal decision, and the funds were used to reconstruct an immense abandoned laboratory building to install the historical archive, which already had fully adequate space for years to come.

By a coincidence (?) which looks rather like “intelligent design”, the day I retired, the shelved design document was revived and construction started. When the works were finished months later I found out that the architect had not even been informed about the realization of his design, let alone not having been contacted for discussion of an architect’s fee, or being invited to inspect the result. I was not surprised – this was part of the “laboratory culture” – just an example of appropriation of credit.

8. The preprints server

The importance of preprint circulation for scientific communication in High Energy Physics (HEP) has been mentioned before. In 1987, these documents were still largely submitted by mail as photocopies on paper. Strangely, in an environment so proud of its ethical standards, there was a massive rate of “disappearance” of these items from the library –much larger than that of other library material. Due to the importance of the preprint literature a f.t.e. (a library assistant) was allocated to request replacement copies.

At a conference in Japan I had seen a system for storing scanned documents on a “laser disk”. This appeared to be a reasonable temporary solution of the problem. If a link to the bibliographic catalogue record were added, users would be able to retrieve and access the documents on the Local Area Network, and subsequently on external networks. With expected developments in production, storage and transmission of full-text documents (cf. note 4) one could envisage seamless transfer to a fully integrated access system. Thus scanning was understood to have short life-time, some 7-10 years, before becoming obsolete.

It was therefore important to find a solution available on the market. Indeed, there was a product available, in operation at a number of places, including the UN in Geneva, and the European Patent Office in the Hague. There was also a very ambitious in-house development project in the French national document centre in Nancy (called “*Foudre*” = lightning”) which for several reasons never became operational.

According to the rules, the acquisition of a system as suggested should be investigated in conjunction with the group (led by JF) responsible for IT-support. My suggestion was discarded without serious technical analysis. Instead a competent IT engineer was given the task of finding an adequate technical solution. This initiative was abandoned after purchase of equipment and several months of trials and without report on progress. Then another competent IT-engineer took over, again after a long period of experiment and without any progress report this effort was abandoned. Evidently, a major component of the preprints server implementation was the link between the full-text file and the corresponding bibliographic catalogue record.

In both cases it was impossible to come to terms about carefully planned co-operation, which would require analysis of objectives, agreement on distribution of tasks, on time schedule,

checkpoints, tests, and start-up date for regular operation. Every effort was rebuked, sometimes even aggressively and insultingly. This gave the clear impression that the “dragging of feet” was endorsed by the IT group leader. The inevitable result was that the matter was delayed several years until the project became obsolete. The fact that, in spite of the claimed effort by two competent IT-experts no results were ever presented raises doubts whether there ever was a serious intent to come up with a workable and cost-effective solution. Ironically, investment for the solution proposed from the beginning was certainly a bargain compared to the the staff cost of keeping the collection in order, and also lower than the cost of the IT-effort claimed in the two aborted trials

The document server project mentioned above, was revived in 1995, now of course using new technology for storage, access and transmission. This excellent in-house development project was gradually extended into a fully-fledged ILS (see section 11), a further departure from the doctrine mentioned on avoiding in-house development of IT-systems if adequate solutions are available on the market. This system is recently marketed by a spin-off company, relying to an unknown extent on support from the CERN development team. One would expect that such a long-term demanding project with considerable total cost, and in an area strictly outside the organization’s objectives, should have been justified by demonstrating that no alternative is available on the market, but such justification has not been made public – as far as I have been able to find out. This observation is in no way to be understood as a criticism of the product as such, the excellence of which I have no reason to doubt.

9. The first pseudo-promotion case

In many international organizations there is a career threshold to the level of diplomatic status. This is important for maintaining a certain authority needed to manage the permanent competition for projects and funding. Note that there was no salary increase coming with upgrading to the 12/level. Matters of grade review were handled by a committee presenting once a year its evaluation results to the DG for decision. Considering that I came from a high position in a technical university, I did not see this upgrading as more than an adjustment. When my case came up, somewhat belatedly, the DG simply crossed out my name without comment, an unprecedented action. Directly asked by the Committee, he claimed that I had refused acquisition of a book suggested by an Italian engineer. Indeed, the suggestion concerned a 40 year old Italian textbook on electronic circuits, clearly outside the acquisition policy, while we had offered to get the book as interlibrary loan. This pretended “justification” was of course ludicrous (as was the intervention of the august person in such a petty routine matter). It only indicated that, in default of own familiarity with SIS activities, the real motivation was based on hearsay and/or fabricated allegations of unprofessional or criminal conduct that would not survive scrutiny in daylight. There must have been an informer supposed to be knowledgeable about SIS matters who could get his denunciations accepted at face value (a strangely unscientific approach). It would normally be regarded a duty, if any credibility was given to the informer’s allegations, to instruct the relevant steering committee and division leader to investigate the case and (if appropriate) suggest corrective action. This was of course realized by both the AS Division Leader, who openly insisted that the policy had been correctly applied, and the relevant Director, who even provided in writing a statement to the same effect. Bringing this fact to the attention of the DG was of course excluded – his mind was made up. The logical

effect of the case was inevitably that onwards, as a principle, any acquisition suggestion from any SIS user must be honoured, even if implying negative effects on acquisitions. In the wake of this burlesque demonstration of power, the Chairman of the library board was instructed to make a thorough investigation of "The case of the refused book purchase", leaving no stone unturned, and to report to the DG. The matter was subsequently shelved. Again I was surprised and dismayed that none of my (hierarchical) superiors stood up to protest against these absurdities, the obvious explanation is that they were afraid of the DGs wrath. The situation again calls to mind the scene in Richard III quoted before (see note 13).

Again, the crucial question towards understanding this abstruse and absurd case concerns the identity of the informer. Could the answer be hidden behind two Freudian slips?

10. The second pseudo-promotion case

One year later my name was again on the selection committee's list. Again the DG crossed it out without comment. And again an informer had apparently come up with allegations based on hearsay, slander or fabricated accusations that would not stand up in daylight. This was not only unprecedented but an affront on the selection committee's judgement. On the request for a justification from the committee, the DG declared that my function was now to be regarded as correctly valued in the lower grade (in conflict with recruitment conditions). The relevant Director stated that the DG had not committed any formal error – he had the right to overrule or ignore the committee's conclusions. Having grown up with the Swedish democratic system of government, I regarded the case an abuse of legalized absolutism that should not be met with obsequious docility - although such an attitude obviously was a normal reaction to DG-decisions even among highly placed officials in the organization, and indeed expected within the "laboratory culture".

A few days later I happened to encounter a member of the Selection Committee. Judiciously summing up recent experience I suggested that we were facing a case of ill-disguised anti-Semitic harassment. Within a week, the Director could inform me that the DG had reversed his verdict and that the Committee's judgment was now accepted, even with retroactive validity. I was of course relieved, but also troubled.

It was highly enigmatic why the DG had not chosen to maintain his opinion by interposing his veto. Could the Selection Committee have threatened to resign if a valid justification was not given? He must have realized that reversing the decision might be interpreted as admitting that there had indeed been an anti-Semitic factor involved. Would the alternative, admitting that there had been no valid argument for the original decision but still refusing to retract it have been even more embarrassing? The Director told me that the DG had been inimical – he had left the top level meeting in anger, to have his deputy sign the new decision. Later, in an obvious Freudian slip, X – now AS Division Leader - let me understand that the DG had been furious for this (truly insignificant) defeat and had been intent on revenge. I could not avoid thinking of the famous (and true) aphorism of Seneca: "*Whom they have injured they therefore hate*".¹⁴ This second slip actually gave me the key to identifying the informer behind this and several other obstacles encountered.

¹⁴ Seneca: *Quos laeserunt et oderunt* (Whom they have injured they therefore hate).

As I have no direct evidence for the contrary, I prefer to believe that there was no anti-Semitic intent in the decisions described. However, they must have been made on incriminating allegations and slander systematically fed to the DG and accepted without any effort for verification, in particular nor confronting the target and allowing investigation of the validity of allegations and defence (notably without inverted burden of proof!). Bypassing this element, which is fundamental standards of social and moral responsibility, is a serious lapse. Yet, acting on denunciation and non-verified allegations in an important sense generates an involvement and complicity in the denunciator's motives and objectives. He becomes an "enabler", making it possible for others to pursue idiosyncratic motives behind the scene. This important and illuminating concept has been introduced in a recent study.¹⁵ It is (for example) relevant in a recent affair at the Karolinska University Hospital in Stockholm¹⁶, where the management - only when the case had been brought to the press, took notice (albeit defensively) of reports on discrimination and harassment.

Again, I had reason to reflect on the Shakespeare quotation in note 13. None in the DGs entourage, except the TH Division Leader whom I first met at CERN – again a proof of his exceptional integrity and civil courage - had asked any question about the DGs unexplained animosity in both these pseudo-promotion matters, which had not been supported by any rational argument.

11. Postscript: Entering the ILS-market

The continued almost exponential growth in capacity of data storage, processing and transmission in the past decades has caused a "sea change" in the way research results are communicated. Now reports, papers, journals and books are produced in "electronic" form, radically changing the access and use of material, thus also the role of research libraries and related institutions.¹⁷

In the mid-1990s this transition was in its beginnings, when at CERN a preprint server" was established to provide direct access to documents mainly in High Energy Physics, with bibliographic retrieval facility provided as one function of the Integrated Library System (ILS). Subsequently, this text management system was extended into a fully-fledged ILS. This effort parallels the evolution on the market for library systems to incorporate upcoming technological advances in "electronic" publishing, access and transmission, In this process at a point the contract with the ExLibris system was discontinued.

¹⁵ Deborah E. Lipstadt: *Antisemitism here and now* (Scribe: London 2019) The "enabler" has an important role by opening doors for uncontrolled and questionable stratagems, as was already noted by Cato in ancient Rome: "The man who can hide his hate can injure whom he will (Dicta Catonis)

¹⁶ See e.g. Aftonbladet 8 June 2019, and Google "Karolinska antisemitism". This affair is particularly indecent, since both the management and the association of physicians have actively tried to silence the offended party.

¹⁷ I just received an invitation to the new Academia.edu iOS app, giving access to 23 million academic papers.

The solution developed at CERN is known as “Invenio”. Recently it is marketed through the spin-off company TIND, with headquarters in Norway. Originally it was offered as “freeware” with support from TIND¹⁸, but the policy seems to have changed to the standard of licence fees used by competitors, including maintenance and developments.

As the system is marketed to-day (April 2019) it consists of 40 modules which can be used as building blocks to meet the specifications of potential customers. From marketing information available by Googling TIND it might be concluded that, in the opinion of the development team, Invenio/TIND outperforms competing products in terms of functionalities as well as maintenance cost. Regrettably, users normally do not publicize their evaluation of experiences with systems they have installed and not even “library technology reports/guides” bring genuine comparisons on technical solutions but merely descriptions, often more or less as provided by the producers. Therefore it is an open question why organizations like ETH (Zürich) with its consortium of research libraries, and the Norwegian consortium, both with some four decades of development experience (ETHICS and BIBSYS respectively) have recently decided to opt for ExLibris products. Not knowing the answer, one must anyway applaud the CERN development team for having been able to develop a complete set of programs, apparently successfully matching the ambitions of the larger players on the market. Yet, with the history of ILS products in mind, I would be (pleasantly) surprised if within four years TIND has still not been absorbed by one of the main actors, but is increasing its own market share.

There is, however, a snag. Developing integrated library systems is not an activity foreseen in the funding of the organization. There must be very good reasons to justify an expenditure in the order of 5-10 Million US \$ for personnel with overheads, meetings, facilities and various resources drawn on (assuming an average of 1.5 respectively 3 full time equivalents in the period 1996-2019). The following questions suggest themselves when looking for justification:

- 1) Which necessary functions (if any) in Invenio/TIND are not available in major systems on the market and why are they indispensable?
- 2) How was the extension of the early work on a document server into a comprehensive library system decided? Are there any progress reports and status reports (reviews on progress on the market, and considerations and reasons for extending the project)?
- 3) What was the total expenditure (defined above) for staff and other resources and expenditures over the entire period of development, and for current maintenance support and development?
- 4) What would the cost of installing the best match on the market have been including an estimate of the cost of developing those functions that are would not have been developed in that system and which are indispensable for CERN as answered to the first question?
- 5) Was it, in retrospect, and considering the simultaneous development of the major systems on the market and their licence fees, still to be regarded a good investment for CERN (as a research organization) to develop an in-house alternative to available systems, and to accept the continued expenditure for maintenance and enhancement?

This question should of course be answered by an independent and unbiased expert.

¹⁸ Marshall Breeding: TIND Technologies and Invenio: A new Model for Automation of Research Libraries (Smart Libraries Newsletter 35:08, Aug. 2015); (latest update 27 March 2018).
<https://librarytechnology.org/document/21456>

12. Endnote.

The whole story (sections 2.2-10) is lamentable in its pettiness, but being a test case with a high degree of consistency, it provides an instructive and probably symptomatic example of how vulnerable strongly hierarchical systems with little external control of internal decision making processes are – by abuse of delegated power - to the formation of quasi-totalitarian cells or domains. Within these, a subculture of total dependence is fostered which grants the leader unquestioning and uncritical allegiance for any scheme on the leader's agenda, a convenient tactic for survival within the cell. It is well-known that scapegoating is an important element in this formation, an effective way being character assassination of a strategically selected subject by systematic informal dissemination of ill-defined and unsubstantiated value statements, combined with inducing the idea of professional failure by stepwise strangling the conditions for operational performance. The efficacy of this technique is in a sense built into the hierarchical system, whose top managers are keen on safeguarding a mutual immunity against critical questions on "internal affairs". The point is here that this cell formation prepares the ground for bypassing and possibly obstructing professional judgement and approved objectives of the organization, allowing an interference of "hidden agenda" and with equally hidden implications for resource deployment.

This is where the standards of intellectual honesty become different in Science Proper and in local Social Systems of Science - a difference in which the governing boards and the financial contributors should take a serious interest. There are different ways to approach a solution – one possibility is to create an independent ethical board (modelled on experience from the health service area), along with sufficiently strong measures to protect "whistle-blowers" from repressive measures, perhaps mediated by an Ombudsman accepted by the management and the Staff Association. Ultimately there is a need for a general change of atmosphere, where it becomes a formal staff obligation to refuse participating opportunistically in acts that are against the official norms of the organization and basic principles of uprightness, and a vigilance in the management hierarchy to discover and eliminate personal agenda, including friendship corruption and associated dependence, opportunism and servility, that depart from the interests of the organization and its funding agencies. In any civil organization, and in particular in research organizations, when "*esprit de corps*" with individual responsibility and involvement is substituted by "*Kadaver-Gehorsam*" (approx.: total subordination to the leader), and when civil courage is (for convenience and/or fear) substituted by unquestioning credulity ("he must have a good reason") the warning bells should toll loud enough not to be overheard.