

In 1877, the Technological Institute became the Royal Institute of Technology (KTH). Other institutions for specialist education, such as the Veterinary Institute, started to push for higher education that had research on the agenda. Science received increasing attention in Swedish society.³⁰

At the same time, the state began to be assigned greater economic and political responsibility on behalf of the nation. For example, the nationally traumatic dissolution of the union between Sweden and Norway in 1905 provided a boost for powers that wanted state investment in the education of engineers and veterinarians to strengthen the country's industry and agriculture in international competition. This transformation of public power was part of a general European tendency, which has been analysed in terms of organised capitalism.³¹

If we look beyond the nation's borders, we see that the Academy of Sciences responded to other movements of the time. One of these was the Scandinavian meetings for natural scientists, which began in 1839 and were held at varying intervals for almost a century. Using various arguments, there was lobbying for the natural sciences and for strengthening their influence in society. Another institution with which the Academy was involved was the International Association of Academies, founded in 1899.³²

From the turn of the century to the 1970s: from consolidation to crisis

So much had changed that entirely new statutes were established in 1904. They entailed considerable adjustments, contributing to the Academy's image as a royal office for science in the civil service, but no upheaval in the institutional order. These statutes came to be revised at a faster rate than previously, but were first replaced with new ones in 1974, so the intervening years form a separate period in our history. This period could also have ended in 1966, when the statutes underwent a relatively thorough revision. However, it is clear that the years around 1970 comprise a formative stage in the history of the Academy of Sciences.

The mission statement in the new statutes of 1904 articulates a defined task: "to promote the sciences, preferentially mathematics and natural science".³³ The Academy works towards this through "scientific institutions, through the publication of scholarly texts, through the awarding of support and rewards to deserving researchers and authors, and otherwise through funding available to the Academy for this purpose". The article also says that the Academy was founded on 2 June 1739 and that the Annual Meeting is held on the anniversary of the promulgation of the first statutes, 31 March. This corrected the mix-up that had been passed down through the 19th century revisions to the statutes.

The 100 Swedish members are distributed across eleven classes instead of nine. New classes have been created through the division of previous ones, such as those for chemistry *and* mineralogy and zoology *and* botany. Technical *sciences* have also been added, and the class for economics is said to be occupied with sciences rather than “knowledges”. The classes for physics and chemistry are reinforced due to the Nobel commitments. The opportunity to name Swedish honorary members is also new, but limited to members of the royal family. The “Norwegian and foreign members” have the same number and distribution as the Swedish ones.

The internal organisation of the Academy also undergoes change. A vice-president and a vice-secretary must be elected. The wording stating that the secretary may participate in discussions and decisions even if he is not a member enables external recruitment. The secretary’s obligations are specified in a more formalised manner. However, at the Annual Meeting he does not need to provide an account of scientific progress, describing activities at the Academy is instead adequate. The previous Editorial Committee is gone, although it was not active in practice, and publication activities are reorganised. The Inspections Committee also vanishes, but two inspectors must be selected for ten different institutions and units, among which has been added an independent department of ethnography at the Museum of Natural History. A number of temporary committees are named, for example one with the task of producing proposals for the secretary. Additionally, an Advisory Committee is established, with tasks that are not particularly well specified. The Administrative Committee remains, but does not independently hire various officials; instead it makes proposals to the Academy for decision-making. The number of officials in the internal organisation does not increase, but their working conditions are modernised. A fireproof safe replaces the iron coffer for valuable documents, but the three locks with different keys remain. It is also said that funding that is not used for running costs must be used for the purchase of standard securities or loaned against adequate security.

The *Rules of Procedure for the Royal Academy of Sciences* came a couple of years after the statutes.³⁴ They are in line with the new statutes as well as the established organisation, but also entail a modernisation of the older procedural statutes, such as by covering annual leave for officials. Nobel business and the management of all the theses for various publications are tangible in the procedures. Even if the detailed rules are new, they do not hold many surprises. However, we can note that the directors must thoroughly ensure that their institutions follow “the progress of science”, science here being a somewhat abstract collective singular. The content of annual reports is also more formalised, although not all directors need to make presentations at the Annual Meeting. Invitations to this are to “science practitioners”, not

“science lovers” as before, and to the public if space is available. These rules of procedure lasted until 1944.

The statutes were revised on a more ongoing basis. The first adjustment was made as soon as 1905, when the specification of “Norwegian” was removed due to the dissolution of the union.³⁵ Further amendments were made in 1920, but these were also primarily adaptations to extrinsic change, particularly in the Academy’s external organisation, to which we will soon return.³⁶ New activities and official positions were added, others disappeared or were simplified. One thing to be removed was the provision that the president and vice-president should be appointed from the Swedish members “resident in Stockholm”. Nor did the revision in 1930 entail major changes, but we can note the listing of various lower-ranked administrative officials appointed by the Administrative Committee.³⁷

A more principled change came in 1939.³⁸ The number of Swedish members increased from 100 to 130, at the same time as the number of member spaces for the various classes did *not* change. After application, the 30 extra members would be allocated to the classes that were “in need of reinforcement”, but without the number of members *below* the age of 70 exceeding the number of available spaces in the class. Therefore, a class with ten spaces and five 75-year-olds could potentially have fifteen members. This measure was designed to counteract the effects of a natural demographic change among the member population.

THE ACADEMY’S EXTERNAL ORGANISATION underwent more substantial change. New institutions were added. The Mittag-Leffler Foundation for Mathematics was based on a donation from the influential Academy member Gösta Mittag-Leffler, professor of mathematics at Stockholm University College, and his wife. In 1931, the Stockholm Observatory, which had a more suitable location for stargazing, Saltsjöbaden, replaced the old observatory, which was no longer located outside the city. The Academy had succeeded in mobilising funding from various sources in the processes behind this investment: private foundations, the Swedish state, the City of Stockholm. Abisko Scientific Research Station, far to the north, was transferred to the Academy of Sciences in 1933, but its activities had started at the turn of the century and developed under uncertain institutional conditions. Influential Academy members were among the enthusiasts that applied to a variety of bodies for resources for its activities. The statutes’ list of institutions concluded with somewhat of a hanger-on: “Additionally, the Academy owns: /a Berzelius museum, /a museum for the history of the exact sciences.”³⁹

THE ACADEMY OF SCIENCES has struck hundreds of medals since the 1740s and most of the tools are preserved in its collections. ►





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1961

The institutions over which the Academy had “care and insight” included a Nobel institute in somewhat varied forms. A section for physical chemistry was created in 1904 as a kind of personal institute for Svante Arrhenius, who had received the Nobel Prize in Chemistry the previous year and been offered a research position in Germany. A couple of institutes for research in chemistry and physics were later formed or reformed for prominent Academy members, who thus received an institutional base that was not dependent on a higher education institution. The Nobel donation could be used for a great deal. After the Academy had investigated issues of nature conservation, as commanded by the King in Council, in 1909 new legislation gave it supervisory powers over “Sweden’s national parks and natural monuments”. The Committee for the Protection of Nature was established for this task, with its air of public authority. In 1935, the Swedish Museum of Ethnography was made autonomous, instead of being a department at the Swedish Museum of Natural History, which was still the largest institution.⁴⁰

This institutional development brought new officials. Even if the external organisation was characterised by growth, its areas of activity shrank somewhat in 1919, when the Central Meteorological Office was merged with the Hydrographic Office and became an independent authority.⁴¹

IF WE TURN OUR GAZE further outward, we see other institutional changes. When war broke out in 1914, it became difficult to conduct cross-border research activities and the International Association of Academies was dissolved. Meanwhile, science was mobilised in the war efforts, demonstrating what its application could bring about. In practice, it seemed impossible to keep politics out of research, even for those who in principle wanted to, such as representatives of the Academy of Sciences in neutral Sweden.⁴² The International Research Council was founded straight after the end of the war, and in 1931 it was transformed into the International Council of Scientific Unions (ICSU) which, after the next world war, became affiliated with UNESCO and the UN. Under the supervision of the Academy, Sweden linked increasing numbers of national committees to the scientific unions participating in the ICSU cooperation. At the time of writing, there are around twenty national committees in Sweden, from astronomy to the history of technology and science.

The first half of the 20th century also brought changes to the field of Swedish academia. Straight after the Great War, which subsequently became World War One, the Academy of Engineering Sciences (IVA) was founded. The Royal Institute of Technology was given new laboratory buildings and, after a long struggle, its own doctoral degree in 1927, symbolically marking how scientific research could be conducted outside the four faculties of the university. The end of World War Two again demonstrated the forces that



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could be generated by research. The Swedish Council for Technical Research was an institutional innovation launched already during the war, inspired by Germany's *Reichforschungsrat* that the Nazi regime had established to steer funding towards research beneficial to the state. After the war, research councils were founded in medicine and natural science, among others, as well as the Atomic Committee, which became a kind of research council for the use of atomic power.⁴³

An institutional order was established at the national level – outside the academies and higher education institutions – to channel increasing amounts of public funding to the research being ascribed increasing importance for national security and welfare. Even if the organisations were new, they were populated by established professors and Academy members. Research became a more central element of societal knowledge management and the phrase “research policy” entered the Swedish language in the early 1960s.

In the post-war years, science also became a more significant element in the education of more and new groups. For example, a number of specialised colleges of higher learning, as they were called, received the right to award doctoral degrees. To be able to overview the education of researchers and to make it more efficient, a government commission was appointed in 1963 and, in 1969, its inquiries resulted in the troublesome flora of doctorates being replaced by a uniform doctoral degree. There were also noisy student protests against stronger political control of research and education, especially at the universities’ “free faculties”, which had gone through an almost explosive growth in the transition from elite to mass education. These young critics probably found it difficult to imagine a shared interest with something as inegalitarian as the old academies, which were exclusionary due to their rules and thus elitist.⁴⁴

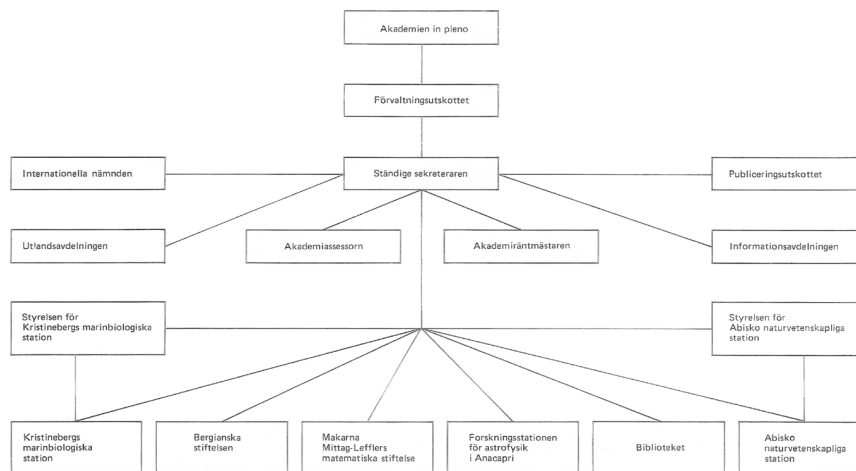
THE ACADEMY WAS INFLUENCED by changes to its contemporaneous surroundings, but because the institution was so path dependent it did not change quickly. A year before the end of the war, some modernisations were made to the rules of procedure from 1907, for example to the regulations about annual leave.⁴⁵ The higher administrative officials were given the right to attend general meetings, as well as a silver jetton if they participated. For the members, compensation was raised to two jettons; they also received one if they participated in committee meetings. The obligation for the directors of the Academy's institutions to hold lectures at the Annual Meeting was relaxed. On the other hand, their duty to “conduct scientific research in the area of the institution's activity” was specified. Two years after the end of the war, changes were made to the statutes that included the founding of a class for geophysics.⁴⁶ Meanwhile, the policy that began in 1939 continued: the number of Swedish members expanded from 130 to 140. The extra spaces

that were free, in a manner of speaking, would, as previously, go to classes that needed reinforcement. This marginal change was repeated in 1963, when the number of members increased to 150.⁴⁷

At the same time, the external organisation of the Academy of Sciences changed. The 1952 Nature Conservation Act partially transferred the business of managing nature conservation to *Domänstyrelsen*, the Royal Domain Board, and, later, entirely to the new National Environment Protection Board. An even greater change occurred in 1965, when the Museum of Natural History and the Museum of Ethnography became independent institutions. Parallel with this downsizing, the external organisation grew in other places. The Capri Research Station for Astrophysics was founded in 1951, using funding from private foundations. The Academy already managed some small facilities in Sarek, and gained another in Tarfala: “In 1951, the Swedish Natural Science Research Council transferred two huts to the Academy, used as support for glaciological research.” At the same time, Academy members were working to promote the expansion of observatory activities in Kiruna. Mobilisation of government resources and funding from Kiruna town council and the Academy itself, meant that the Kiruna Geophysical Observatory was founded in 1957.⁴⁸ Activities had been expanded to the south and north, with solar and aurora borealis research.

Expansion came at a cost and, by the end of the 1950s, the financial situation was strained. In 1959, the Administrative Committee appointed a committee tasked with discussing the Academy’s future activities in light of the financial conditions and ongoing state inquiries. It examined the library and other institutions, relations with the state and an intended university in Stockholm, as well as the future tasks of the Academy and the motivation for its existence.⁴⁹ No one then knew that similar committees would be appointed in 1966 and 1969, or that the Academy was facing testing years that would come to be formative for it as an institution.

AN INDICATION of this is found in 1966’s extensive changes to the statutes from 1904.⁵⁰ One field of activity that had been cultivated from the very first was given increased significance through a new addition to the mission statement: “The Academy maintains links with foreign academies and learned societies and with international scientific unions and also works for international scientific cooperation.” The Academy itself is changed. The number of members is reduced from a maximum of 150 to *at least* 116 – or increased from the 108 fixed member spaces that were previously distributed across the classes, if one wishes to see it that way. The principal news is that a space becomes vacant on the member’s departure – the specification “through death” had been removed earlier – *or* when the member reaches 70 years of age. With this, the absolute ceiling for the number of members disappears,



A TYPICAL ORGANISATION CHART published as part of the Academy's annual report in *Documenta in 1974*. The annual report was written by the then secretary Carl Gustaf Bernhard, but who drew the chart is unclear.

providing a more effective means of combatting the consequences of increasing life expectancy. In brief, conditions for rejuvenation are created. The classes remain, but distribution across them is shifted, most noticeably so for the last one, “for other sciences and for outstanding service to scientific research”, which has almost half of its member spaces reallocated to other classes. The foreign members are a *maximum* of 116 and allocated like the Swedish ones.

The revision to the statutes also entails changes in the internal organisation. The president is still elected for a year, but may be re-elected twice and thus sit for three years. He also gets a first and second vice-president. The Advisory Committee becomes more of a nominating committee. The Administrative Committee takes over some of the Advisory Committee's previous tasks, while retaining its old ones, and with these broadened powers it becomes more central and similar to a board. Among the officials that are mentioned, the librarian is replaced by a library director. The accountant and ombudsman also receive new titles, which combine academia and public authority: academy treasurer and academy assessor. They have the right to attend and speak at the meetings of the Administrative Committee. The majority of administrative officials, with more assisting than managing tasks, are not presented in the statutes, which instead refer to the Academy's budget for a listing of them.

The changes to the external organisation that have been described above are reflected in the statutes – new items are added to the list of institutions. At

the same time, the article on institutions under the Academy's formal supervision ceases to apply, as do the articles on inspectors for these institutions.

Even if these changes were major, they were soon followed by even greater ones.

In 1966, a government commission presented an inquiry into the issue of the almanac monopoly. After a round of referrals, in which everyone except the Academy of Sciences, the publisher Almqvist & Wiksell and the chancellor of justice was opposed to the monopoly, a government bill proposed not to extend it beyond 1972. The primary source of income since 1747 was to disappear. The minister for education stated that this raised the issue of the Academy's tasks and position in the future. The future of the institutions required particular consideration.⁵¹

This came in the form of another government commission and a new bill in 1973, proposing that the observatories should be transferred to public ownership. The Stockholm Observatory should be subsumed into the city's university, while the one in Kiruna, with a large proportion of research council funding, was to be a separate research institute with links to the new university in Umeå. The Academy was to remain the principal of the other institutions until further notice, and had to annually apply for state funding to run activities. The Bergius professorship had already been partially subsumed into Stockholm University in 1969, when the state also purchased most of the Bergius Foundation's landholdings.⁵²

In 1973, new changes to the statutes came just a few months after the Riksdag had approved the bill's proposals.⁵³ The number of members was increased to 128, while the age at which a member's space became vacant was reduced to 65. The class for economic, statistical and social sciences was the primary one to be reinforced; since 1969, it had been responsible for the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel. The secretary was relieved of the task of managing the Academy's comprehensive publication activities, which were reformed at this time and partially phased out.

These new circumstances had an impact on the internal organisation. Among the officials, the foreign secretary was added while the editor for *Sveriges statskalender* disappeared. To assist the secretary, the Publication Committee and the International Board were founded. The Secretariat was diversified through the International Department and the Information Department. It was written into the statutes that the King in Council was to appoint a representative among the auditors. It may have been a sign of the times that the older references to "rules of procedure" were replaced in 1973 by a reference to "specific instructions and regulations".

The external organisation shrank when the observatories received other principals.

*From the 1970s to the present day:
new departures*

It was in this turbulent time that Carl Gustaf Bernhard entered the stage, first as a member in 1968, then as president and, from 1973, as secretary. An enthusiastic actor, he came to contribute to formative changes in the Academy. These changes also entailed more and more frequent alterations to the formal framework. New statutes were established in 1974, which was the year after the last amendments. They were not characterised by the same stability as the statutes from 1741, 1820 and 1904. In relation to the applicable version of the regulations from 1904, they mostly entailed adjustments to practicalities, but the King in Council promulgated them as new statutes.⁵⁴

They were revised as soon as 1975, when one innovation was that the amendments were not promulgated by the King in Council, but by the government, in accordance with Sweden's 1974 constitution.⁵⁵ Another was that six new members were added to the twelfth and final class, the one for other sciences and outstanding services. As secretary, Bernhard came to influence the choice of members in this class in a way he did not do in the specifically scientific classes. For example, politicians and cultural personages were elected, bringing with them contact networks and media attention.⁵⁶

Since 1973, a committee had been working on reviewing the Academy's rules of procedure, and new regulations were introduced in 1976.⁵⁷ Like the rules from 1944, they were organised as articles, but were less comprehensive and had fewer details, such as those on the various journals, on the obligations of institution directors and on forms for remunerating officials. However, the right to sideline occupations was regulated. Space and attention was dedicated to the ways of organising things, rather than to the rules for handling specific tasks and cases.

The Presiding Committee was a new element of the organisation, consisting of the president and two vice-presidents, as well as the secretary and his deputy. The Administrative Committee also had its own rubric. In addition to the tasks listed in the statutes, the regulations gave this committee standing delegations on a multitude of matters. The Secretariat also got its own rubric. Its work was organised into four departments. The Academy's executive director, previously called the academy assessor, was head of the Secretariat, and the academy treasurer of the Treasury. The foreign secretary and information secretary were heads of their departments. The staff at the Secretariat and the library had become so numerous that a business council had to be established to organise staff consultation in accordance with the relevant legislation.⁵⁸

Just one year later, 1977, the statutes were revised somewhat more extensively. A third vice-president was added, but the procedure if all presidents

were incapacitated was explained anyway. On the other hand, the vice-secretary disappeared. In the event of the secretary becoming incapacitated, the executive director stepped in instead, as the first name among the listed administrative officials. However, the biggest piece of news in 1977 was the establishment of the International Institute for Energy and Human Ecology, the Beijer Institute. This change in the external organisation was created through a donation from a private foundation. However, the new institution was no more external than it being housed in an extension to the Academy building in Frescati.⁵⁹

It was probably becoming difficult to keep track of all the versions and revisions. Just one month after the most recent promulgation, the Academy realised that it had sent in an older version of an article and asked the government to promulgate the correct wording. All the same, further revisions were made in 1980. After some discussion, an earlier model was reintroduced, with extra member spaces that did not belong to a specific class, five of them this time, which could be allotted to classes “in temporary need of reinforcement”. The internal organisation was simplified in that the fireproof safe for valuable documents no longer needed to have three locks with separate keys. A somewhat earlier change to the external organisation, one that affected many employees and major grants, was that the library was transferred to public ownership and subsumed into Stockholm University. Another was that, through a major international cooperation, the research station on Capri was moved to La Palma, where the conditions for observations were better.⁶⁰

New statutes are promulgated as soon as 1985, this time with more thoroughgoing revisions.⁶¹ The wording “and other information activities” is added to the mission statement’s listing of the means with which the Academy shall work towards its aims. This corresponds to the “third task”, that of outreach about their activities, which has been assigned to higher education institutions since the higher education reform of 1977.

The Academy itself does not actually change, even if the number of extra member spaces for potential reinforcement is increased from five to twelve. The assembly is quorate when at least 40 members are present at a general meeting. The classes receive their own rubric and are regarded as permanent scientific committees that must “follow the progress of science”. They choose the chairperson themselves, instead of being led by the secretary. Finally, it is also stated that changes to the statutes must be promulgated by the government, not the King in Council, which had persisted throughout all the revisions.

Changes to the internal organisation are greater. Both the Advisory and Administrative committees are gone. Instead, reference is made to the Presiding Committee, consisting of presidents and secretary, the tasks of which include managing representation in international contexts. In addition, the

Academy Board is founded, consisting of the Presiding Committee and a member from each of the twelve classes. The Academy Board processes issues and makes decisions, represents the Academy and is its signatory, and presents candidates for the positions of president and permanent secretary for election at a general meeting. The secretary manages Academy matters “according to the guidelines and instructions provided by the Academy Board” and implements decisions. He must organise work so that it meets the demands of science and, as head of the Secretariat, ensure that its activities are conducted according to the relevant regulations and with the greatest possible efficiency. The Secretariat changes its name in Swedish and is given its own rubric.

THE IMAGE EVOKED by the new statutes gains further clarification in the rules of procedure from 1989.⁶² They continue dismantling the formerly detailed regulations and are not set out as articles. General meetings are still held on Wednesdays, but a new item is that the classes are expected to meet at least once each semester. As a rule, the Academy Board meets once a month, and the department heads from the Secretariat are entitled to attend. Administrative work is organised through six departments. The Administrative Department, the Auditing Department and the Financial Management Department have the executive director, the academy accountant and the academy treasurer as heads, while the International Department, the Environmental Secretariat and the Information Department are each led by a secretary. The Academy Board must annually validate an organisation plan and operating plan. The board also validates instructions for some new permanent committees: the Environmental Committee, the Polar Research Committee and committees for processing applications for research exchange agreements with other countries.

The only change to the external organisation is the new Center for History of Science from 1988 which, like the Beijer Institute, was created with the help of donations. Nor was this institution more external than it also found a home in the Academy building.

As we can see, the organisation changed so that the relationship between the Academy Board and the secretary came to be like that between a board and director, with a somewhat freer mandate and more executive powers for both. The extension of this is that the Academy of Sciences in plenum appears to be somewhat of a meeting of shareholders, an assembly that votes on prepared proposals rather than works autonomously in the 18th-century manner. The business company as an organisational form was in fashion; it is as if elements of this model were adopted in order to contribute to legitimacy, to the Academy appearing to be a relevant actor with an adequate and efficient organisation. Like other organisations, the Academy of Sciences was



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of Sciences”*
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the object of pressure towards organisational uniformity, in accordance with the theory of institutional isomorphism.⁶³

We can also see that the internal organisation developed more than the external. Administrative support became more elaborate and gained a somewhat more autonomous position in advisory work, while the number of detailed regulations was reduced. This organisational trend, with the emphasis on efficiency and overall planning, was also in fashion and thus entailed a pressure towards uniformity. In 1988, the Riksdag decided that Swedish public administration would abandon detailed regulatory governance, transitioning to goal and result-oriented management.

THE ACADEMY'S STATUTES were subject to frequent changes: 1988, 1992, 1993, 2000 and 2002, before completely new ones were introduced in 2006.⁶⁴ The rules of procedure were revised in 1998 and 2002.⁶⁵ There were many changes, but they were not particularly radical. There is no reason to present them all in detail, but some should be noted. Two classes disappeared in 1988, mainly because two new classes – geosciences and biosciences – were formed through the merger of four previous classes. The tenth and final class received a partially new name: “for humanities and other sciences and outstanding service to science”. The number of members increased: from 134 to 161 and 164 to 167. In 2000 it was decided that the Academy would be quorate if a summons to a general meeting had been sent in accordance with the statutes, while foreign members who were resident in Sweden received voting rights. The financial year was changed in 1992, when it was also decided that the three auditors should be authorised. This entailed a professionalisation of review activities. Later, the statutes were changed to add that a former president should take the floor when the Academy in plenum dealt with the issue of discharge from liability for the sitting Academy Board. The president's normal period of office was extended, first to two and then to three years.

The rules of procedure from 1998 stated that the president should determine the salary and employment conditions for the secretary who, in turn, decided on the organisation and management of the Secretariat. Otherwise, nothing was said about its organisation or planning, and only officials invited by the secretary were entitled to attend general meetings and the Academy Board's meetings. The 2002 rules of procedure eradicated the old jetton system. They stated that the Presiding Committee would function as a special working group within the Academy Board, which was tasked with establishing rules for capital withdrawals that would be subject to annual review. Another task was to appoint a Nominating Committee, not to be taken solely from the board, for presenting nominations for the president and vice-presidents. Of the permanent committees, only the Environmental Committee still remained in 2002.

The external organisation was, in principle, unchanged, even if the research station in Kristineberg was no longer solely run by the Academy. Instead, it was run in partnership with the University of Gothenburg.

If we turn our gaze further outwards, we can see changes in the field of higher education, where the majority of members were, or had been, active. Under the heading of “freedom for quality”, the right-wing higher education reforms of 1993 broke up the uniform and regulated system that had been the consequence of the 1977 Social-Democratic reform to higher education. There was a new market for elite ventures and notions of excellence. A great deal of power and responsibility was delegated to higher education institutions, which became more focused on economic result, as well as subject to evaluation. Issues of organisation and management received greater attention and became more important in decentralised higher education, which was true for information and communication activities too – this was also the case for the Academy which, in 1995, started working on “a so-called homepage on the Internet”.⁶⁶ This development was not limited to the higher education sector or to Sweden; instead it corresponded with the broad wave of organisational reforms collectively known as “new public management”.⁶⁷

This period also saw a fairly intensive establishment of academies in many developing nations. New forms of cooperation appeared, not least in Europe. Umbrella or meta organisations arose on the more densely populated international field of scientific academies and similar institutions, to coordinate other organisations’ activities and agendas. After the Berlin Wall came down, the Academy of Sciences participated in the discussions that, in 1994, resulted in the founding of the cooperative body, All European Academies (ALLEA). Another body, the European Academies’ Science Advisory Council (EASAC), was founded in Stockholm in 2001 and has been active in Brussels.⁶⁸

THE NEW STATUTES of 2006 are carefully crafted and free themselves from the disposition that had been passed down since 1904, while returning to the older name of “statutes” which had been replaced by “charter” in 1904.⁶⁹ The mission statement still says that the Academy’s task is to promote the sciences. However, “and strengthen their influence in society” has been added to the new text. Natural science is mentioned before mathematics, which is perhaps a significant detail in relation to the order of 1904. Other changes are more striking:

The Academy strives to generally increase the exchange between different disciplines and the understanding of their particular nature.
The Academy does this by

- disseminating knowledge of findings and problems in current research,
- participating in public debate about education and research,
- awarding prizes, rewards and grants, and
- running scientific institutions and projects.

We see that the first action to be mentioned is the dissemination of research findings which, in a way, is a re-actualisation of a task assumed by the Academy ever since the 18th century. Another new yet old task that contributes to inward and outward legitimacy is involvement and participation in the debate on societal knowledge management – acting as an organisation that is a bridgehead for knowledge policy. The third task has come to be dominated by the Nobel Prize which, in turn, has come to dominate the Academy. Fourthly, and finally, there is mention of the activity that deals more directly with the creation of scientific knowledge; this task had come first ever since 1904, but then with more and larger institutions to run and without any talk in terms of “projects”. The general striving to cross boundaries in a spirit of interdisciplinarity and to develop exchanges and understanding between various specialisms is a new and explicitly stated purpose.

The Academy expands again, to 175 members and with ten extra spaces for necessary reinforcements. The number of classes remains ten, but the two last ones get new names: “for social sciences” and “for humanities and for outstanding services to science”. For elections, the class establishes a Nominations Committee, which primarily considers candidates’ scientific qualifications. “In addition, there must be consideration of potential benefit to the Academy and the need for a broad representation of subjects, rejuvenation, equality between men and women and geographic spread.” The aspect of equality is also noticeable in the use of the pronouns: “he or she” replaces the previous “he”. Internationalisation is apparent through the opportunity for a foreign citizen permanently working in Sweden to be elected as a *Swedish* member. We can also note that the right of a member to leave the Academy is mentioned as a separate article.

The internal organisation also changes. The Presiding Committee remains, but the Swedish name of the Academy Board changes, even if its tasks do not actually change much. The board may, as with the Academy, delegate tasks, but must check that that they are completed and, when necessary, rescind the authority it delegated. Elections to president and secretary are prepared by a Nominating Committee. In principle, the external organisation does not change, even if this is not obvious in the statutes. The list of institutions had been removed in the revision performed in 1985, which made it easier to change the organisation without changing the statutes. The rules of procedure were removed when the statutes were revised in 2006. Four years later, a delegation of authority was introduced to streamline work and was to be considered by the Academy on an annual basis.⁷⁰

SEALS, EMBLEMS AND VARIOUS KINDS OF LOGOS contribute to an organisation's visibility through visual recognition. The seal of the Academy of Sciences originates from 1746 and was modernised in 2009, partly to better suit digital contexts. In 2011, a logo for the Young Academy of Sweden was created by Gustav Granström and Oscar Laufersweiler, with several variants for different purposes.

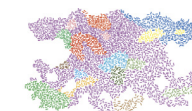
As for changes after the adoption of these statutes, it can be said – in brief – that the internal organisation has continued to change. Various committees have been created and been able to act more independently, for example through reports and statements that the Academy has not needed to agree on in plenum. In 2012, activities were organised into committees for research policy, international issues, environmental issues, programme activities and education.⁷¹ Like public authorities and non-governmental organisations, the Academy has introduced fashionable organisational elements, not least in the expansive area of communication and information. Like other modern institutions, it has produced documents with visions and strategies, and dedicated time to evaluations. The website talks of the Presiding Committee in terms of a management group.

The external organisation has shrunk. The research stations in Kristineberg and Abisko, as well as the Institute for Astrophysics, have been transferred to other principals, though they had already received educational tasks to some extent. From the formerly motley flora of institutions, four remain at the time of writing, linked to various donations or foundations: the Beijer Institute, the Bergius Foundation, the Center for History of Science and Institut Mittag-Leffler. In practice, the Beijer Institute was taken over by the state in 1989, creating the Stockholm Environment Institute, upon which a reorganised Beijer Institute focusing on ecological economics was established in 1991.

A new addition that straddles internal and external organisation is the Young Academy of Sweden. This was founded on the initiative of the Academy of Sciences in 2011, with funding from various foundations and the Ministry of Education and Research. From the very beginning, the idea was that the new institution would be hived off, and a separate foundation was created for it after two years. Activities are managed by a director and it has a secretariat and communications officer in the premises of the Academy of Sciences. In 2010, the umbrella organisation of the Global Young Academy was founded, as similar institutions had been established in other places.⁷² As previously in history, inspiration from outside contributed to an institutional uniformity, but only time will tell whether the Young Academy of Sweden will become an old institution, not prone to change.



SVERIGES UNGA AKADEMI



SVERIGES UNGA AKADEMI

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SIKTIGT!!!
FÖREMÅL

ÖPPNA FÖRSIKTIGT!!!
ÖMTALIGA FÖREMÅL



Summarising perspectives

The diachronic approach we have taken in this chapter emphasises the tendency towards path dependence in the history of the Academy of Sciences. Still, we have seen many examples of how this tendency has met recurring pressure towards institutional isomorphism, of how the Academy has incorporated fashionable organisational elements in order to appear well-equipped to take on contemporary tasks. The influence of contemporaneous sources of inspiration and forces for change are explored more closely in the chapters below, which work with more synchronic perspectives.

Here, we can note that when the Academy of Sciences was founded in 1739, the institution adopted procedures and organisational solutions from other academies and learned societies in Sweden and abroad. Because its founding meant the creation of something new, this stage appears almost by definition as formative, while the momentum perhaps came more from the political circumstances of the time than from inspiring predecessors.

The period around 1820 also appears to be formative – the established order was ripe for reformation after years of setbacks for the Academy. However, it is difficult to pinpoint a specific catalyst. Referring to Jöns Jacob Berzelius assuming the post of secretary is one explanation, highlighting the importance of this energetic actor and his opportunities for intervention in a situation where the institution was open to reform and new choices. A more general explanation refers to the new ways of regarding higher education, its mission and its role.

The year of 1904 is not such a clear turning point, with the new statutes that, in a way, codified the scientific orientation that had evolved. However, the early 20th century did bring formative change for the Academy of Sciences and its activities. For example, the Nobel Prize was instituted, as was the work on nature conservation, while the Academy was also investigating and deciding on new buildings for itself, for the Swedish Museum of Natural History and for the first of the Nobel institutes.

Nor does 1974 mark a distinct turning point. However, the sequence of events leading up to the promulgation of the new statutes appears clearly formative, the focal point being the decision by the state in 1969 not to renew the almanac monopoly. Carl Gustaf Bernhard took the stage in a situation that required tangible reassessments. In the final chapter, we will see that even the new procedures this audacious actor helped to establish were largely conditioned by the greater trends and circumstances of the time. The reactions to and the consequences of the removal of the monopoly led

THE COLLECTIONS at the Center for History of Science not only include archives, but also a large collection of objects.

to the transition to the most recent period discernible from an overarching perspective: the contemporary history of the Academy of Sciences.

Overall, we can see that form and content are related, as far as changes to the formal framework have been related to changes in activities and the material conditions for them. The dates of new statutes indicate turning points in the institution's history.

One alternative to using this periodisation as a way of handling the Academy's history, is to consider the movements of the centre of gravity within the organisation, to focus on the shifts in emphasis that we have already noted and will explore further in the chapters that follow. Initially, the emphasis of its activities lay in the *Academy itself*, which gathered and assessed beneficial findings before putting them into circulation. Gradually, the creation of new knowledge became a more important task, and institutions were added to take on various elements of this. As the number of institutions increased, and they grew larger and more autonomous, the emphasis shifted to the *external organisation*. When the institutions were later transferred to other principals, the emphasis moved again, to the *internal organisation*, which became more elaborate and assumed a more defined managerial role. This is another way of summarising and dealing with the history of the Academy of Sciences.

These movements and shifts are difficult to date with exactness and imply a gliding, perhaps evasive, periodisation. This may seem more congenial with the complexities of history than an organiser's inclination to hang up a convoluted course of events on single years. While this alternative way of handling a historical long view is less distinct in its division into periods, it provides a clearer image of some drawn-out processes. For example, it brings into sharper focus the way that the task of producing new knowledge through the founding of numerous institutions encompassed centrifugal tendencies. When, in the post-war period, research activities started moving towards Big Science, when the institutions in the external organisation required greater funding to perform their work, these centrifugal forces built up a situation that had no long-term sustainability for the Academy in the basic form that had been established and would preferably have continued. In this situation, the issue of the almanac privilege's to be or not to be appears less decisive. Such an institutionalist perspective on the dynamics of once-chosen organisational solutions sheds light on a crucial step in the contemporary history of the Academy of Sciences.