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Recommendation for a Swiss National Competence Centre for Scientific Integrity

Edwin C. Constable
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Executive summary

Unlike many European countries, Switzerland has no national institution specifically concerned with scientific integrity. The roles and functions of national bodies can be *investigatory, oversight* or *advisory*.

The report evaluates and justifies the need for a Swiss National Competence Centre for Scientific Integrity. The principal benefits are (i) minimization of cases involving scientific integrity (ii) ensuring that cases are handled in a fair and transparent manner and (iii) protecting the reputations of institutions, disciplines and the national research sector.

A Swiss national centre could be established as an *association, a foundation* or with a *mandate* from a higher body. The latter is recommended.

A prerequisite is that the individual educational institutions retain primary responsibility for investigating cases of scientific misconduct and, if necessary, for imposing sanctions.

Scenarios for the function of a Swiss national centre range from a passive role as a repository to an investigative agency with mandatory powers. The autonomy of the higher education institutions must be respected.

A legal overview identifies how a national agency could be established within existing national legislation. No attempt is made to consider all relevant legislation at the cantonal or community level. A legal assessment of the data protection implications of a national centre is also presented.

Finally, an assessment of the likely resource implications for a Swiss national centre is made and possible governance structures analyzed.

The recommendations are:

- *A Swiss national centre be established*
- *A model with oversight and advisory roles is proposed*
- *A national centre operating under a mandate of the SHK under Art. 12 of the HKFG offers the best transparency and guarantees the necessary independence and legitimacy*
- *A financial model similar to that of the aaq is recommended*

Zusammenfassung

Im Gegensatz zu vielen europäischen Ländern gibt es in der Schweiz keine nationale Institution, die sich speziell mit wissenschaftlicher Integrität befasst. Die Rollen und Funktionen der nationalen Stellen können untersuchend, überwachend oder beratend sein.

Der Bericht evaluiert und begründet den Bedarf für ein Schweizerisches Nationales Kompetenzzentrum für wissenschaftliche Integrität. Die Hauptvorteile sind (i) die Minimierung von Fällen, die wissenschaftliche Integrität betreffen, (ii) die Sicherstellung, dass Fälle auf faire und transparente Weise behandelt werden und (iii) der Schutz der Reputation von Institutionen, Disziplinen und des nationalen Forschungssektors.

Ein schweizerisches nationales Zentrum könnte als Verein, Stiftung oder mit einem Mandat einer übergeordneten Instanz gegründet werden. Letzteres wird empfohlen.

Voraussetzung ist, dass die einzelnen Bildungsinstitutionen die Hauptverantwortung für die Untersuchung von Fällen wissenschaftlichen Fehlverhaltens und ggf. für die Verhängung von Sanktionen behalten.

Die Szenarien für die Funktion eines nationalen Zentrums in der Schweiz reichen von einer passiven Rolle als Aufbewahrungsort bis hin zu einer Ermittlungsbehörde mit verbindlichen Befugnissen. Die Autonomie der Hochschulen muss dabei respektiert werden.

Ein rechtlicher Überblick zeigt auf, wie eine nationale Stelle innerhalb der bestehenden nationalen Gesetzgebung eingerichtet werden könnte. Es wird kein Versuch unternommen, alle relevante Gesetzgebung auf kantonaler oder kommunaler Ebene zu berücksichtigen. Eine rechtliche Bewertung der datenschutzrechtlichen Implikationen eines nationalen Zentrums wird ebenfalls vorgestellt.

Abschließend wird eine Einschätzung der wahrscheinlichen Ressourcenimplikationen für ein nationales Zentrum in der Schweiz vorgenommen und mögliche Governance-Strukturen werden analysiert.

Die Empfehlungen lauten:

- *Ein nationales Zentrum in der Schweiz wird eingerichtet.*
- *Ein Modell mit Aufsichts- und Beratungsfunktionen wird vorgeschlagen*
- *Ein nationales Zentrum, das unter einem Mandat der SHK nach Art. 12 HKFG bietet die beste Transparenz und garantiert die notwendige Unabhängigkeit und Legitimität*
- *Ein Finanzierungsmodell ähnlich dem der aaq wird empfohlen*

Résumé

Contrairement à de nombreux pays européens, la Suisse n'a pas d'institution nationale spécifiquement concernée par l'intégrité scientifique. Les rôles et fonctions des organismes nationaux peuvent être d'investigation, de surveillance ou de conseil.

Ce rapport évalue et justifie la nécessité d'un centre national suisse de compétence en matière d'intégrité scientifique. Les principaux avantages sont (i) la minimisation des cas impliquant l'intégrité scientifique (ii) la garantie que les cas sont traités de manière équitable et transparente et (iii) la protection de la réputation des institutions, des disciplines et du secteur national de la recherche.

Un centre national suisse pourrait être établi sous la forme d'une association, d'une fondation ou avec un mandat d'une instance supérieure. Cette dernière solution est recommandée.

Une condition préalable est que les établissements d'enseignement individuels conservent la responsabilité première d'enquêter sur les cas d'inconduite scientifique et, si nécessaire, d'imposer des sanctions.

Les scénarios pour la fonction d'un centre national suisse vont d'un rôle passif de dépôt à une agence d'investigation dotée de pouvoirs obligatoires. L'autonomie des établissements d'enseignement supérieur doit être respectée.

Un aperçu juridique identifie comment une agence nationale pourrait être établie dans le cadre de la législation nationale existante. Aucune tentative n'est faite pour examiner toute la législation pertinente au niveau cantonal ou communautaire. Une évaluation juridique des implications d'un centre national en matière de protection des données est également présentée.

Enfin, une évaluation des implications probables en termes de ressources pour un centre national suisse est effectuée et les structures de gouvernance possibles sont analysées.

Les recommandations sont les suivantes :

- *La création d'un centre national suisse*
- *Un modèle avec des rôles de supervision et de conseil est proposé.*
- *Un centre national fonctionnant sous un mandat de la SHK en vertu de l'art. 12 de la HKFG offre la meilleure transparence et garantit l'indépendance et la légitimité nécessaires.*
- *Un modèle financier similaire à celui de l'aaq est recommandé.*

1. Mandate and methods

Professor Edwin Constable was mandated by swissuniversities to conduct a feasibility study for a Swiss National Competence Centre for Scientific Integrity (henceforth SNCCSI). This included an evaluation of the structure and legal background, the institutional alignment and an initial projection of infrastructure and costs.

The name “SNCCSI” is used in this document without prejudice for any final denomination. The terms *science*, *scientist*, *scientific* etc. include all academic activity, regardless of discipline.

Professor Constable established working groups to investigate the background requirements for *Infrastructure and Oversight*, *International Context* and *Legal Context*.

The working groups were constituted as follows and met through zoom meetings and electronic distribution of documents:

Infrastructure and Oversight

Edwin Constable, Chair

Matthias Egger, President SNSF

Bernhard Ehrenzeller, swissuniversities and Rector of HSG

Claudia Lautenschütz (in part), SNSF

International Context

Edwin Constable, Chair

Lidia Borrell-Damien, Secretary General Science Europe

Nicole Föger, Managing Director of OeAWI

Rhys Morgan, Head of Research Policy, Governance and Integrity, Research Strategy Office, University of Cambridge

Legal Context

Edwin Constable, Chair

Bernhard Ehrenzeller, swissuniversities and Rector of HSG

Christina Baumann, Hochschulpolitik SBFI

Walter Stoffel, Ombudsstelle University of Fribourg

Subsequently an *ad hoc* group was established to clarify the legal background for the recommendations

Bernhard Ehrenzeller, Chair, swissuniversities and Rector of HSG

Christina Baumann, Hochschulpolitik SBFI

Rolf Bereuter, Bildungsdepartement SG i.V. SHK

Inge Blatter, SNSF

Edwin Constable

Andrea Kronenberg, EDK

Infrastructure and Oversight. The function was to ensure recommendations would be acceptable to stakeholders, that minimal requirements for a robust integrity framework would be met and to identify infrastructure and resource requirements.

International Context. National solutions in Europe are varied, ranging from centralized offices charged with the evaluation and investigation of integrity cases to those functioning as a repository. It is difficult to establish common international best practice. The group identified the core competencies and essential features defining a national office and also identified practices to avoid.

Legal Context. The legal framework in Switzerland is complex and regulations relevant to scientific integrity exist at national, cantonal and institutional levels. The SNCCSI must conform with national and cantonal employment laws, data and patient protection legislation (ArG, HFKG, HFG, DSG, FADP and, in part, GDPR) as well as the regulations governing the higher education institutions. The working groups considered structures for an SNCCSI and their legal basis.

2. Context

Scientific research is under increasing scrutiny. Funding agencies, the general public and politicians are concerned with irregularities in research data, value for money and relevance. Scientists are under pressure to maximize their output in a “publish or perish” culture. Scientific integrity should become an established part of research accreditation processes and an indicator of the health of Swiss research.

High profile cases such as the Macchiarini affair have intensified this scrutiny. A Macchiarini case could occur in any country, including Switzerland, at any time. Highly politicized topics such as climate change have created a culture of denouncing embarrassing scientific results as “fake facts”. The COVID-19 pandemic has brought scientific activity even more into the public and political gaze.

Many countries have national bodies which monitor scientific integrity (Table 1). The overall picture in Europe is extremely heterogeneous.^{1,2,3} Nevertheless, Switzerland is one of the few scientifically leading countries in Europe that does not have a national body charged with roles including implementing and advising on codes for scientific integrity, educating researchers on best practice, mediation and quality control. In Switzerland, the national "Code of conduct for scientific integrity" is published by the Swiss Academies of Arts and Sciences⁴ (a+) in fulfilment of Article 5 of their Statutes "a+ unterstützt seine Mitglieder bei der Wahrnehmung ihrer Aufgaben, namentlich der Früherkennung gesellschaftlich und ethisch relevanter Themen in den Bereichen Bildung, Forschung, Technologie und Innovation".⁵ The new Swiss Code for Scientific Integrity (Kodex zur wissenschaftlichen Integrität, Code d'intégrité scientifique,

¹ See for example, S. Godecharle, B. Nemery, K. Dierickx, Guidance on research integrity: no union in Europe, *The Lancet*, **2013**, 381 (9872), 1097-1098; [https://doi.org/10.1016/S0140-6736\(13\)60759-X](https://doi.org/10.1016/S0140-6736(13)60759-X).

² H. Desmond, K. Dierickx, Research integrity codes of conduct in Europe: Understanding the divergences, *Bioethics*, **2021**, 1– 15; <https://doi.org/10.1111/bioe.12851>

³ ENRIO, Country Reports. Available online <http://www.enrio.eu/country-reports/>

⁴ Available online. <https://swiss-academies.ch/en/uber-uns/kommissionen-und-arbeitsgruppen/wissenschaftliche-integritat/>

⁵ Statuten der Akademien der Wissenschaften Schweiz, 2018 Available online. https://api.swiss-academies.ch/site/assets/files/4967/statuten_a_de_sign.pdf

Codice di integrità scientifica) was published 11th ay 2021. This document, prepared by a Commission established by the Swiss Academies of Arts and Sciences under the presidency of Professor Constable, is complementary to the present report. Many of the recommendations for best practice in the Code for Scientific Integrity could be implemented in parallel to the establishment of a SNCCSI.

Table 1. European national Agencies for Research Integrity

Country	National agency	Function(s)
Austria	Austrian Agency for Research Integrity, 2008	E, A, I, ME
Belgium	Flemish Commission for Research Integrity, 2013 – only Flanders	I, A
Croatia	Croatian Committee on Ethics in Science and Higher Education, 2005 ⁶	
Denmark	Danish Committee on Research Misconduct, 2017	I, A
Estonia	Estonian Research Council (ETAg) – advisory only	
Finland	TENK, The Finnish National Board on Research Integrity	A, E, AP
France	French Office for Research Integrity	A, O
Germany	German Research Ombudsman	A, ME
Ireland	National Research Integrity Forum	A, E, O
Lithuania	Office of the Ombudsperson for Academic Ethics and Procedures	ME
Luxembourg	Luxembourg Agency for Research Integrity	E, I, ME, O, M, S
Netherlands	Netherlands Board on Research Integrity, 2003	A, (I)
Norway	National Commission for the Investigation of Research Misconduct	A, E, I, O, AP
Poland	Science Ethics Commission, 2010	A, (I)
Portugal	National statement, no national body (2020)	
Slovenia	Initiative in progress	I, S
Spain	National statement, no national body (2020)	
Sweden	Expert Group on Research Misconduct (new law 2020), Central Ethical Review Board	I, M, S
UK	UK Research Integrity Office, 2006, UK Research Integrity Committee 2021(?) ⁷	O, A, E, S

A = Advisory, E = Educational, I = investigatory, O = Oversight, AP = Appeals body, M = Mandatory, ME = Mediation, S = Sanctions

To the best of our knowledge, European countries not listed above have no independent national infra-structure, but rely on the codes of conduct of individual institutions, the national funding agencies or the national academies. These include Russia, Ukraine, Italy, Romania, Belarus, Kazakhstan, Greece, Hungary, Iceland, Latvia, Czech Republic, Slovak Republic, Serbia and, of course, Switzerland.

The primary functions of national offices are also indicated in Table 1 and the primary missions include:

- Serving as repository for all integrity cases of the HEIs
- building experience and develop a common understanding of best practices in scientific integrity cases
- reducing the likelihood of integrity violations
- ensuring that integrity cases are handled in a fair and transparent manner
- providing and sharing guidance on best practice
- ensuring research quality in the educational sector.

⁶ The current situation in Croatia is confused and the Committee appears non-functional. See: M. Marušić, Croatia moves away from fostering research integrity, *The Lancet*, 2010, 376 (9753), 1627-1628; [https://doi.org/10.1016/S0140-6736\(10\)61999-X](https://doi.org/10.1016/S0140-6736(10)61999-X) and M. Tatalović, Croatia's top judge sues national ethics panel after it finds him guilty of plagiarism, *Science*, 2018, <https://doi.org/10.1126/science.aat4009>.

⁷ It is unclear if the UK has actually implemented the UK Research Integrity Committee as of 2021.

In Switzerland, Kap. 2, Abs. 2 of the FIGF⁸ defines the tasks, funding principles and contributions of the research funding institutions, which are, in turn defined as the SNF and the Swiss Academies for Arts and Sciences in Kap. 1, Art. 4. Sanctions are explicitly discussed in Kap. 2, Abs. 2, Art. 12.

The Swiss Academies for Arts and Sciences to The Swiss Academies of Arts and Sciences has recently become a member of ENRIO (the European Network of Research Integrity Offices) with Professor Constable as the national representative.

There are no public data concerning scientific misconduct in Switzerland. We do not know how many cases are identified and handled within institutions. We do not know what sanctions have been taken in cases of proven misconduct or if those sanctions were either proportionate or coherent.

The emergence of watchdog sites such as Retraction Watch and PubPeer has changed the dynamic in monitoring scientific integrity. Higher education institutions traditionally became aware of potential scientific misconduct through internal processes and investigations. Today, an institution is more likely to be informed of a potential case through the media or internet. This is especially true in the most serious cases.

Worldwide, higher education institutions are struggling to react in a transparent manner while preserving their autonomy and responsibilities to employees. This has been a driver for the establishment of national integrity offices.

The Swiss Confederation has a complex structure with constitutionally guaranteed autonomy for the higher education institutions. With the exception of the federal institutions (ETHZ, EPFL) and the SNF, the cantons are responsible for the universities and their research activities. Nevertheless, the Federal Constitution provides for joint federal and cantonal competencies in the field of higher education and describes the powers and responsibilities of the Confederation and the Cantons. Although a great deal is to be learnt from other European countries, the unique nature of the higher education sector in Switzerland ensures that no single model can be adopted “*fix fertig*”. The responsibility for maintaining scientific integrity lies with the higher education institutions, the federal institutions and the cantons, implemented through their rules, statutes and regulations.

The purpose of this report is to recommend a structure for the establishment and governance of an SNCCSI that:

- Provides added-value to the stakeholders
- Is acceptable to all stakeholders
- Conforms with international standards
- Is fair and transparent

3. Key issues identified for the establishment of a Swiss National Centre

The SNCCSI must operate in a fair and transparent manner and must not be too closely associated with any single stakeholder.

⁸ <https://www.fedlex.admin.ch/eli/cc/2013/786/de>

The SNCCSI must retain the trust of the stakeholders and the scientific community through a combination of transparent and efficient operation and a respected academic figurehead and platform. The engagement of the research community will be enhanced if the national office also has a role in sensitizing researchers to integrity issues.

The SNCCSI must respect the independence of the higher education institutions, the expectations of government, funding agencies and the general public, and at the same time as preserve the rights of the scientists.

The SNCCSI should not be excessively procedural.

Experience shows that national offices can effectively preclude double jeopardy (multiple investigations by different bodies and institutions of the same case at the same time). Nevertheless, legal structures enshrine the right to appeal, as well as permitting multiple consecutive investigations. Cases involving multiple national or international institutions or funding agencies often involve parallel investigations.

Data protection issues are critical to the operation of the SNCCSI. International experience suggests that reporting of cases *to* the SNCCSI should not be fully anonymized. Reporting of cases *by* the SNCCSI could be fully anonymized (with the exception of feedback to the relevant higher education institution).

The involvement of external (to the employing higher education institution) or international experts is best practice, subject to data protection aspects.

The threshold for reporting cases must be consistent with the autonomy of the Swiss higher education institutions.

Non-compliance with requirements of funding agencies (Open access, Open data, data management etc.) is not an issue of scientific integrity but is the responsibility of the Swiss funding agencies and higher education institutions.

There is no international consensus on a *statute of limitations*. Some national offices have no limitation to investigating historical cases. Others limit cases to those for which the primary data are available through institutional data repositories. There is no general agreement about data sharing when individuals move between institutions. Most agencies agree that well-documented historical plagiarism cases fall within their remit – these are unusual in that the output is both documented and with a defined publication date.

There is also variation in how *whistleblowers* are protected within the national systems. In most cases, whistleblowing is enshrined in national or local legislation. There is no general agreement on whether whistleblowers should receive feed-back on their complaints or how their identities can be protected.

There are various practices for access to the national offices. In some cases, individuals may make a complaint or appeal directly to the office, in other instances these can only be channeled through the parent institution.

4. Function and form

The credo “form follows function” is sacrosanct. Nevertheless, for a meaningful discussion of function, it is necessary to consider the possible forms.

The need for transparency and independence precludes the establishment of the SNCCSI as part of the SNSF (conflict of interest as the research funding agency) or swissuniversities (body representing the employers). Although the Swiss Academies of Arts and Sciences might be seen as having a conflict of interest in representing the researchers, its mission is to support the entire research community and its respected position and the successful launch of the new Code of conduct for scientific integrity would make it a strong platform for an SNCCSI trusted by higher education institutions, funding agencies and, most importantly, the researchers, alike.

For the rapid implementation of the SNCCSI, the chosen form should require minimal or no changes to the HFKG or other national legislation.

Three possibilities were considered for establishing the SNCCSI:

- An association (Verein, Association, Associazione)
- A foundation (Stiftung, Fondation, Fondazione)
- A direct mandate or endorsement from a higher body

Establishing an association is non-bureaucratic and involves no registration or fees. The minimum legal requirements are established in Art. 60 *et seq* of the Swiss Civil Code. Once established, an association is a moral person in Swiss law. An association is flexible and its aims and purposes can be modified by its members. New members may be added and members can leave. In Switzerland, Euresearch is an example of a national association representing higher educational institutions. To ensure transparency and fairness, an association could be established by *all* stakeholders or by collectives

An association is a form of organization of the private law fulfilling a public function. Transparency would only be achieved if *all* higher education institutions and stakeholders were members. This has an inherent conflict of interest and a danger that individual institutions could unilaterally leave the association. Collectives could involve swissuniversities, the Swiss National Science Foundation and the Swiss Academies of Arts and Sciences as members, although this might involve changes to their own regulations to allow representation of their members in the new association. The potential for institutions “opting out” and for real or perceived conflicts of interest makes the association the least favoured option.

A foundation is a moral person in law and must be established according to Art. 80 *et seq.* of the Swiss Civil Code and is required to have a minimum initial capital of CHF 50'000, a Foundation Council and an Audit Board. A foundation is independent, but relatively inflexible, operating under the oversight of a legal entity (Confederation, Canton or Gemeinde) and the goals and purpose may only be altered with the consent of this legal entity and oversight body. Foundations representing higher education institutions in Switzerland include Switch, the Swiss School of Public Health (SSPH+), the Swiss Centre for Applied Human Toxicology (scaht), the Swiss Institute of Bioinformatics (SIB) and the Swiss National Science Foundation (SNSF). A foundation could be established jointly by swissuniversities, the Swiss National Science Foundation and the Swiss Academies of Arts and Sciences. A foundation could be financed under Art. 45 para. 3 item 2 of the HFKG.

The third, and favoured, option would be to operate with a mandate from a higher body with responsibility for the Swiss educational institutions. This removes any conflict of interest and defines the nature of engagement with, and obligations upon, the higher education institutions. The Swiss University Conference (SHK) is the senior higher education policy body in Switzerland with functions defined by the Federal Constitution and the HFKG. The SHK is responsible for the joint coordination of the federal government and the cantons in the Swiss higher education system and represents all stakeholders involved in scientific integrity. Resolutions of the SHK surmount cantonal law. The legal working groups concluded that Art. 12, para. 3, letter a, point 2 of the HFKG would permit the SHK to issue a mandate for the establishment of an SNCCSI. The establishment of the SNCCSI is a concretization of the legal requirement of the SHK to ensure quality assurance.

We recommend the establishment of the SNCCSI under a mandate from the SHK according to Art. 12 of the HFKG.

5. Analysis of models for a Swiss National centre for Scientific Integrity

As analyzed in Section 3, national organizations can have one or more of three primary functions: *investigation*, *oversight* and *advice and education*. Table 2 presents a short summary of the nature and potential advantages and disadvantage of each of these structures (based on an EMBO evaluation of the case for a Europe-wide research misconduct organization)⁹.

Table 2. Summary of possible roles of a national competence centre

Role	Function	Pros	Cons
Investigation	<ul style="list-style-type: none"> Investigations on behalf of institutions Establish facts Report to institution(s) No legal or power to sanction 	<ul style="list-style-type: none"> Homogeneity Independence Trust Core expertise Transparency Exchange of best practice 	<ul style="list-style-type: none"> Acceptance is not certain Data protection and privacy may prevent access to material No power to impose sanctions
Oversight	<ul style="list-style-type: none"> Review of investigations Certification and accreditation Institutions can request oversight 	<ul style="list-style-type: none"> Independence Incentives for institutions Consistency Independence of institutions maintained 	<ul style="list-style-type: none"> No investigatory power Prolonged investigations
Advice and education	<ul style="list-style-type: none"> Policy and structure advice List of experts Mediation and coordination in multi-institutional cases 	<ul style="list-style-type: none"> Coherent advice Independent advice Independence of institutions preserved 	<ul style="list-style-type: none"> Conflict with institutional structures

We now describe possible models for an SNCCSI. An assessment of each model is given after the description.

⁹ S. Bendiscioli, M. S. Garfinkel, Options for a coordinated approach to handling research misconduct investigations in Europe. EMBO, 2020. Available online: https://www.embo.org/documents/science_policy/governance_of_ri.pdf

6.1 “Super-Lite” – the leaky data repository

The “super-lite” model is predicated upon institutions and agencies passing anonymized information to the SNCCSI on a *voluntary* basis. The institutions would decide on the severity of a case and would be under a moral obligation to report serious cases to the SNCCSI.

The SNCCSI would present anonymized statistics to stakeholders. Public disclosure would not necessarily be a part of the mandate.

The SNCCSI would not have investigative powers or advisory and educational roles.

The SNCCSI would not have a mandate for educating the community regarding best practice in issues of scientific integrity.

This model has no merit. The worst cases would not be reported. We would still have no idea of the number of transgressions in Switzerland and the reporting and data would not be robust, transparent or valid. There is no added-value to this model. The resource implications are as minimal as the impact.

6.2 “Lite” and “Lite+” – the data repository

The “lite” and “lite+” models are predicated upon institutions and agencies passing information to the SNCCSI on a *mandatory* basis. The information could be partly or fully anonymized. Names of individuals would be removed but the discipline and nature of any sanctions would be included. The threshold for reporting cases would be publicly stated. As the severity of a case can be subjective, the institutions themselves would decide if the reporting threshold had been reached.

The SNCCSI would present anonymized statistics to stakeholders and an annual public report. Institutions and individuals would not be identified. The broad discipline could be identified.

The SNCCSI would not have investigative powers or advisory and educational roles. The SNCCSI would identify inconsistencies in the handling of similar cases in different institutions and report these to the institutions and swissuniversities. This requires the SNCCSI to have access to the full (anonymized) documents of the investigations upon request.

The SNCCSI *could* have a mandate for educating the community in terms of best practice in issues of scientific integrity. This differentiates between “lite” and “lite+”

These models have considerable merit. We would know how many serious transgressions we have in Switzerland, albeit only those over an ill-defined threshold. The reporting is reasonably transparent, but in the absence of an educational mandate, it is unlikely that the SNCCSI would do little more than collect data. Neither “lite” nor “lite+” succeed in reducing the probability of serious cases and do not provide assistance to institutions struggling with the consequences of a serious transgression (although they might succeed in highlighting the magnitude of the problem). Enhancement with an educational function in the “lite+” version would improve visibility, impact and possibly acceptance.

6.3 “Middle-of the road”, “Middle-of the road+” and “Middle-of the road++” – the Swiss option?

This model is a transparent approach that is flexible and robust. Higher education institutions and agencies would pass information on investigations and sanctions to the SNCCSI on a *mandatory* basis. The threshold for reporting would be defined at the establishment of the SNCCSI. The information could be partially or fully anonymized. Names of individuals could be removed but the discipline and nature of any sanctions would be included.

The SNCCSI could also have an investigative role. If institutions wished to involve an external body, the SNCCSI could be invited to act in coordination or advisory roles or to lead an investigation itself. This defines the option “Middle-of the road+”

The SNCCSI could also act as a platform for the coordination of investigations concerning multiple institutions in “Middle-of the road+”.

The SNCCSI would establish a small international panel of experts in various disciplines available for consultation in complex cases. The external experts would advise on best practice in disciplines. This could be achieved with a small group of experts representing humanities, social sciences, natural sciences, law, medical and veterinary science, economics, engineering, theology and educational sciences.

The SNCCSI could provide experts, prepare expert reports, conduct evidence collection and provide written opinions at the request of the universities.

The SNCCSI could establish the validity of allegations and, if necessary, recommend sanctions. The institution(s) are responsible for the imposition of the sanctions and would not be bound by the SNCCSI recommendations.

In both “Middle-of the road” and “Middle-of the road+”, the SNCCSI would identify inconsistencies (including sanctions) in the handling of cases in different institutions. The SNCCSI would report these inconsistencies to the institutions and swissuniversities.

The SNCCSI would present anonymized statistics to stakeholders and an annual public report. In the annual report, the broad discipline but not institutions would be identified.

Individuals should not be able to bring allegations directly to the SNCCSI as this would bypass the internal process and autonomy of the institutions. Similarly, whistleblowers should initially report to the appropriate institution. An open question remains concerning claims that an institution has not responded to legitimate concerns. The SNCCSI should not self-initiate investigations.

The SNCCSI could function as an oversight body for the conduct of individual cases within institutions, limited to an evaluation of the process and compliance, and would *not* be an appeals instance. There would be no re-investigation of cases, decisions or sanctions. The institutions would be informed if processes were found to be flawed or actions disproportionate.

The SNCCSI *could* have a mandate for coordinating the education of the community in terms of best practice in issues of scientific integrity and be mandated to increase public awareness of these issues. In a first instance, this could involve consolidation and distribution of materials

already in use in the individual Swiss higher education institutions. The SNCCSI *could* also be the national point of contact for all issues and communications relating to scientific integrity. Either or both of these options define “Middle-of the road++”. This is probably the optimal structure for the initial establishment within the Swiss higher education environment.

The resource implications for this model are larger. “Middle-of the road++” might require separate infrastructures for investigation and reporting and for education, communication and awareness. For options “Middle-of the road+” and “Middle-of the road++”, a budget for access to, or in-house, legal competency would be needed.

One of the almost infinite variants should be acceptable to all stakeholders and institutions in Switzerland. The oversight role, limited to a review of process, is a valuable contribution to transparency.

“Middle-of the road++” is an ideal solution, although it is the most expensive of these options.

6.4 “The Full Monty” and “The Full Monty+”

The “Full Monty” model is a full and transparent approach that places integrity issues completely in the public domain. It is a model that finds some favour in Northern European nations. Institutions pass information regarding *any* allegation to the SNCCSI on a *mandatory* basis.

The SNCCSI would decide whether the severity of the allegations merit initiating its own investigation or whether it could be delegated to the institution. Cases involving multiple institutions would automatically be investigated by the SNCCSI.

If the SNCCSI investigated a case, it would establish the validity of the allegations and recommend the level of sanctions to be imposed. If the investigation were delegated to the institution, the institution would report its investigations and sanctions to the SNCCSI. In both cases, the final decision regarding the nature and implementation of sanctions would lie with the higher education institution. The SNCCSI *could* institute investigations at its own initiative.

All investigations would involve external (to the host institution) and international experts.

The SNCCSI would be mandated to present anonymized statistics to stakeholders and an annual public report.

The SNCCSI *could* have a mandate for coordinating the education of the community in terms of best practice in issues of scientific integrity and be mandated to increase public awareness.

This model is not recommended for further consideration because:

- The autonomy of the higher educational institutes is severely compromised
- Appeals procedures are escalated rapidly to the legal domain
- The operation would become draconian, intrusive and over-bureaucratic
- There will be little scientific, political or public enthusiasm
- It would not be accepted by institutions in Switzerland.

6.5 Summary

Table 3 summarizes the models considered for a SNCCSI. The colour coding indicates options that should not be further considered (pink), that are possible but not favoured (yellow) and (green) that most likely to be acceptable to Swiss stakeholders. Comparison with other European models is found in Section 2.

Table 3. Models for a SNCCSI

Model	Mode	Threshold	Report	Investigation or advice	Advice and training	Transparency	Value for money	Resource
Super-lite	Voluntary	No	Stakeholders only	No	No	No	No	Minimal
Lite	Mandatory	Declared ¹	Yes	No	No	Mainly	Middle	Small
Lite+	Mandatory	Declared ¹	Yes	No	Yes	Mainly	Good	Medium
Middle-of-the-road	Mandatory	Agreed ²	Yes	No	No	Yes	Good	Medium
Middle-of-the-road+	Mandatory	Agreed ²	Yes	Yes, on request,	No	Yes	Excellent	Medium
Middle-of-the-road++	Mandatory	Agreed ²	Yes	Yes, on request	Yes	Yes	Middle	Medium-to-high
The full monty	Mandatory	Defined ³	Yes	Yes	No	Yes	Poor	Very high
The full monty	Mandatory	Defined ³	Yes	Yes	Yes	Yes	Poor	Very high

¹ Reporting threshold decided and announced by the higher education institution. ² Reporting threshold agreed between the SNCCSI and the higher education institutions. ³ Reporting threshold defined by the SNCCSI.

6. Legal background

The working group identified legislation relevant to the establishment of the SNCCSI taking into account:

- Transfer of anonymized, partially-anonymized or non-anonymized data to a third party by a higher education institution. Institutions governed by national legislation (FIFG, ETHG) are explicitly allowed to pass on and ask for information in cases of scientific misconduct, but those institutions governed at cantonal level (most universities, universities of applied science and of teacher education) lack such a regulation.
- Overall conformity with data protection law.
- Conformity with employment law .

The devolved Swiss system constrained consideration only to national level legislation. In many cases, cantonal legislation also needs to be considered. The relevant national legislation is:

Federal Act on Funding and Coordination of the Swiss Higher Education Institutions (HEdA - HFKG, SR 414.20)

Federal Act on the Promotion of Research and Innovation (RIPA – FIFG, SR 420.1)

Federal Act on the Federal Institutes of Technology (ETHG – SR 414.110)

Ordinance of the Higher Education Council on Accreditation within the Higher Education Sector (SR 414.205.3)

Federal Act on Data Protection (SR 235.1)

Federal Act on Administrative Procedure (VwVG – SR 172.021)

At the cantonal level, the individual rules and regulations governing the higher education institutions, the data protection regulations and the regulations on administrative procedure (similar to the VwVG) need to be checked for conformity

7. Data Protection

The full text of the legal expertise Prof. Dr. Rolf H. Weber and Markus Näf is included as Appendix 1.

The conclusions and recommendations are presented in full here.

A decree of the SHK for the establishment of the SNCCSI forms the substantive legal basis for an integrity check procedure, but does not constitute a legal basis in the formal sense. This decree should therefore suffice for the processing of integrity cases, as long as no particularly sensitive personal data is affected or there is no other justification (e.g. consent or authorisation in other laws).

Overall, the following is recommended for further project implementation:

- i. The Confederation should invite the cantons to create an equivalent legal basis for the exchange of information with the SNCCSI in their higher education laws and to propose a corresponding wording of the law to the cantons.
- ii. The Federal Data Protection and Information Commissioner (FDPIC) and any other cantonal data protection authorities should be consulted in advance regarding the planned regulation.
- iii. Insofar as a register of persons is kept for the integrity checks and this is also accessible to the universities, a legal basis is required due to the joint use of data, as is notification of the data collection to the FDPIC.
- iv. In the decree of the SHK, the decree of the Swiss University Council as the substantive legal basis for the SNCCSI should include a comprehensive competence for data processing and for the exchange of data with third parties at home and abroad. This also includes the duty of the higher education institutions to disclose data to the SNCCSI.
- v. The decree should contain a regulation of the rights and obligations of the persons involved (e.g. with rights of access and procedural rights) and also create the legal basis for communication with the higher education institutions and the public.

8. Infrastructure

Estimating the infrastructure requirements of any of the variants of an SNCCSI is exceptionally difficult. Only in the case of "super-lite" is it possible to make a realistic evaluation!

The reason lies precisely in the need for this feasibility study – we have no realistic estimate of the number of annual cases that would pass a threshold for reporting or investigation. Assuming a sensible and pragmatic threshold somewhere above plagiarism in an unpublished Masters thesis and below fabrication of results by a doctoral candidate, a number of 20 cases per year seems not unreasonable.

We have made an estimate of resource requirements for the recommended “Middle-of the road++” option taking into consideration the international norms.

An absolute minimum would be 2 FTE as an establishment “Middle-of the road+” . This would comprise a managing director and administrative assistant. This assumes that in-house legal expertise is not a favoured option. There is a strong case for 2.5-3.5 FTE or greater with 0.5 FTE legal expertise (“Middle-of the road++”).

Premises would either need to be located and rented, or made available from at swissuniversities, the Swiss National Science Foundation or the Swiss Academies of Arts and Sciences. The Swiss Academies of Arts and Sciences have expressed their willingness and wish to act as the platform for the SNCCSI.

Place-holder for a+ Stellungnahme. Note that a discussion on this topic is to take place between ECC, Marcel Tanner and Yves Fluckiger in the near future.

An annual budget is required for office and administrative expenses and the preparation and distribution of training material.

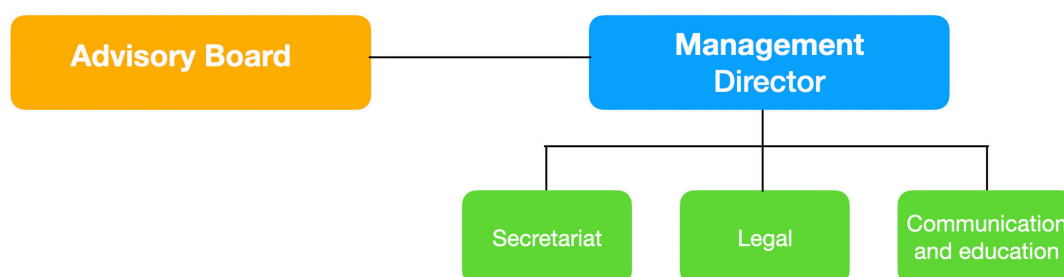
It is assumed that the full costs of any investigations coordinated by, or delegated to, the SNCCSI would be directly recharged to the appropriate employing institutions.

If a panel of external international experts were established, a small annual retainer would be appropriate (CHF 1'000 per person?). If called upon by the SNCCSI or higher education institutions, they would be individually recompensed at an agreed rate. These costs would be recharged to the higher education institutions.

9. Governance

The SNCCSI must be slim, independent, engaged with stakeholders and transparent in operation.

The SNCCSI requires an advisory board and a management board



The advisory board (Beirat, Conseil consultatif, Comitato consultivo) could comprise ombudspersons or integrity officers of the higher education institutions. This would enhance

the efficiency and advance the acceptance of the SNCCSI in the community. The director would be ratified by the SHK on the proposal of swissuniversities, SNF and the Swiss Academies of Arts and Sciences. Other positions would lie within the competence of the Director and the Management Board. The constitution of the Management Board should reflect the stakeholders.

10. Financing

We recommend that the SNCCSI be finance according to the model adopted for the accreditation agency AAQ. The AAQ is established with a mandate from the SHK.

The financial model consists of core ("Sockel") funding from the SHK and contributions from the stakeholders and individual higher academic institutions.

11. Recommendations

On the basis of the preceding arguments, we recommend the following:

We recommend to the Vorstand of swissuniversities that a SNCCSI be established.

We recommend "Middle-of the road++" with oversight and advisory roles as offering the best added value, the greatest transparency and benefit to the community.

The SNCCSI should be established under a mandate of the SHK at the request of swissuniversities.

We recommend the establishment of an implementation project group comprising swissuniversities, the Swiss National Science Foundation and the Swiss Academies of Arts and Sciences.

12. Next steps

The next steps are the following:

- Establish a project group from swissuniversities, the Swiss National Science Foundation and the Swiss Academies of Arts and Sciences.
- Approach the Staatssekretärin for endorsement of the proposal
- Clarify the physical location and institutional association of the SNCCSI
- Initiate discussions with the SHK
- Initiate the necessary legal aspects identified in the legal expertise – specifically
 - i. The Confederation should invite the cantons to create a legal basis for the exchange of information with the SNCCSI in their higher education laws and to propose a corresponding wording of the law to the cantons.
 - ii. The Federal Data Protection and Information Commissioner (FDPIC) and any other cantonal data protection authorities should be consulted regarding the planned regulation.
 - iii. Insofar as a register of persons is kept for the integrity checks and this is accessible to the universities, a corresponding legal basis is required due to the joint use of data, as is notification of the data collection to the FDPIC.

iv. In the decree of the Swiss University Council, the decree of the Swiss University Council as the substantive legal basis for the SNCCSI should include a comprehensive competence for data processing and for the exchange of data with third parties at home and abroad, including the duty of the higher education institutions to disclose data to the SNCCSI.

v. The decree should contain a regulation of the rights and obligations of the persons involved (e.g. with rights of access and procedural rights) and also create the legal basis for communication with the higher education institutions and the public.