



International evaluation and accreditation

EVALUATION AND ACCREDITATION DOCUMENTS

UNIVERSITY OF SCIENCE AND TECHNOLOGY OF
HANOI (USTH)

Hanoi

VIETNAM

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High Council for evaluation of research and higher education

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International evaluation and accreditation

EVALUATION REPORT

UNIVERSITY OF SCIENCE AND TECHNOLOGY OF
HANOI (USTH)

Hanoi

VIETNAM

MAY 2023

USTH has mandated the Hcéres to perform its external evaluation. The evaluation is based on the “External Evaluation Standards” of foreign Higher Education institutions, adopted by the Hcéres Board on January 31st, 2022. These standards are available on the Hcéres website (hceres.fr).

On behalf of the expert committee¹ :

Jean-Paul de GAUDEMAR, President of the expert committee

For the Hcéres² :

Stéphane Le Bouler, acting President

In accordance with the decree n°2021-1536, November 29th, 2021:

¹ The evaluation reports « are signed by the president of the committee » (article 13)

² The president of Hcéres « countersigns the assessment reports made by the experts' committees" (article 8).

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I. INSTITUTION IDENTITY SHEET

The University of Science and Technology of Hanoi (USTH), also called French-Vietnamese University, is an institution created in 2009 by an intergovernmental agreement (IGA) between France and Vietnam, with the ambition to become one of the best research universities in Vietnam, and internationally oriented.

Governed by Vietnamese law, it was at the beginning under the supervision of the Ministry of Education and Training (MOET), then, since 2016, under the responsibility of the Vietnam Academy of Sciences and Technologies (VAST), the main research body of the country, of which it occupies part of the premises.

USTH is one of the 3 universities in Vietnam based on this model of international partnership with a foreign country, together with the German-Vietnamese University (VGU-2008) and the Japanese-Vietnamese University (VJU-2015); the idea is to develop a new university model integrating training, research, and innovation, in conjunction with businesses. A new intergovernmental agreement came in 2018 (ratified in 2020) to consolidate the support of both countries' partners.

USTH is the first university in Asia to follow the Bologna process for graduation, which is widely applied in most European countries. Accordingly, the duration of training for the bachelor's, master's and doctoral (LMD) programs is 3, 2 and 3 years respectively.

In France, USTH is supported by the Ministry of Higher Education and Research (MESR), and the Ministry of Europe and Foreign Affairs (MEAE), but above all by the USTH Consortium, an association which today brings together 28 establishments of higher education and two French research organizations IRD (Institut de Recherche pour le Développement) and CNES (Centre National d'Études Spatiales), created with the aim of helping the development of the USTH, in particular to support it in its mission of training its future lecturers-researchers by welcoming the best Master students in PhD curriculum.

For now, more than 2200 students are enrolled in the University. USTH hopes to double this figure in the next few years. The doubling should be allowed with a new campus on an extra-urban site relatively close to Hanoi.

USTH offers 16 bachelor's programs¹.

In 2022-2023, the most part of students is trained for bachelors (2074 students²). The courses are entirely taught in English. The first year is common to all programs and allows students to improve their skills in English.

USTH own bachelor's degree was evaluated (as a single program with 6 curricula) and accredited by Hcéres in 2017 for a period of 5 years. The accreditation is still valid during the implementation phase of the institutional evaluation.

USTH also delivers 6 master's programs³ co-accredited with French Universities of the consortium, and as such, evaluated by Hcéres at regular intervals. The last assessment dates from 2021. In 2022-23, only 138 students were trained for masters and 40 for PhD⁴.

The university currently employs 166 permanent staff, including 91 full-time teachers. It announces a consolidated budget of 7.3 million euros, 84% financed by the Vietnamese side.

The USTH is directed by a rectoral binome composed by a French Principal Rector, who is a French international technical expert, and a Vietnamese Rector, who is professor.

¹ Bachelor in space science and satellite technology, bachelor in medical science and technology, bachelor in aeronautical engineering, bachelor in cyber security, bachelor in biotechnology – drug discovery, bachelor in information and communication technology, bachelor in data science, bachelor in food science and technology, bachelor in applied environmental sciences, bachelor in engineering physics and electronics, bachelor in chemistry, bachelor in automotive engineering, bachelor in electrical engineering and renewable energy, bachelor in mechatronics engineering technology, bachelor in applied mathematics, bachelor in advanced materials science and nanotechnology

² USTH-Characterization sheet p. 7

³ master in science aeronautics and space – international air transport operations management, master in medical biotechnology – plant biotechnology – pharmacology, master in information and communication technology, master in space: earth observation, astrophysics, satellite technology, master in applied environmental sciences, master in advanced materials science and nanotechnology.

A seventh program concerned Energy but it was suppressed in 2020 because of an applicant's shortage.

⁴ USTH-Characterization sheet p.8

II. VISIT DESCRIPTION

PRESENTATION OF THE INSTITUTION'S SELF-EVALUATION APPROACH

The USTH self-evaluation report (SER), dated March 2023, is presented in a rather attractive, dense but nevertheless airy form, illustrated by numerous graphs, diagrams or tables and thus facilitating the reading of the 70 pages that compose it.

Basically, it follows to the letter the standards of the three evaluation fields (Strategic and operational management, Research, innovation, and inclusion of science in society policy, Education and student and campus life policy). It presents them rather clearly based on numerous documents provided in annexes. It was therefore useful to the members of the expert committee (EC), although the contents of the proposed document do not exclude some redundancies. Moreover, because of the relative youth of the institution, the text sometimes tends to project itself more towards its future strategic project than towards its present potential. However, it cannot be blamed for simply presenting a "wishful thinking" because it demonstrates at the same time a real lucidity on the USTH main strengths and weaknesses as on the risks incurred, especially those related to the specific context in which it is inscribed.

COMPOSITION OF THE EXPERT COMMITTEE

The expert committee (EC) is chaired by Jean-Paul de GAUDEMAR, Honorary Professor at the University of Aix-Marseille, and Honorary Rector of French academies and of "Agence Universitaire de la Francophonie". It is also composed with:

- Jean ARLAT, Honorary Research Director with CNRS, former Director of LAAS-CNRS,
- Alexandre DELVILLE, Deputy Head Department in charge of innovation, General Directorate for Enterprises, DRIEETS IDF, Ministry of Economy, and Finance,
- Olivier DURREAU, Deputy General Manager of Centrale-Lille,
- Mohamed MAAMIR, student expert,
- Anne VARENNE, Professor at Chemistry ParisTech, University PSL.

Hcéres was represented by Antoine DEVOUCOUX du BUYSSON, Head of project.

VISIT DESCRIPTION

The visit took place in Hanoi from 3 to 5 May 2023. It consisted essentially of about thirty interviews with internal or external interlocutors at USTH, either for the entire committee or in trinomials. Prior to the visit, these interlocutors had been chosen jointly by Hcéres and USTH.

The committee welcomed the reception given to its delegation by USTH and the provision of adequate rooms for interviews, especially when they took place remotely. The quality of connections available to the institution within the VAST campus deserves to be highlighted in this regard. USTH has also always responded favourably to the numerous requests for documents made to it by the committee.

Due to the quality of the interviews and to the working conditions, the expert committee thus considers that it has been able to carry out its task in excellent conditions.

III. EVALUATION REPORT

INTRODUCTION

The request for accreditation formulated by USTH⁵ is, despite the institution's youth, the product of a complex history. The intergovernmental agreement (IGA) signed between France and Vietnam, first in 2009⁶, provided in mind of its founders for a university, placed under the aegis of the Vietnamese Ministry of Education and Training (MoET), dedicated to quality master's and doctoral level courses co-accredited with French universities, in fields useful to the host country but not necessarily opening the entire training chain, especially at bachelor level (equivalent to the license's level for France). At the same time, two other binational universities, VGU and VJU, were created on the same model.

Paradoxically, these universities, largely dedicated to research, were placed under the supervision of a ministry whose competence did not extend to research, the latter being dependent on the Ministry of Science and Technology (MoST) and the VAST. However, from the beginning, USTH was welcomed for its premises within the VAST campus and was thus able to benefit from a stimulating proximity with the other institutes depending of VAST.

These two factors probably explain why in 2016, the administrative supervision of the university changed from MoET to VAST, thus transforming it into one of the VAST's institutes. Then, in 2018, a new intergovernmental agreement was reached, specifying the financial mechanisms, ratified by the two governments only in 2020 because of the health crisis.

For various reasons, both strategy and governance, the "excellence" model initially conceived of a university focused on research and high-level training, quickly appeared to be difficult to sustain, both poorly adapted to a sufficient recruitment of students and to the real needs of the host country. This was followed by a crisis aggravated by governance problems and then in 2020 by the health crisis and a closure of Vietnam totally incompatible with the mobility requirements of such a structure.

These various crises have temporarily harmed USTH but at the same time, we can consider that they have had a salutary effect both in terms of strategy and implementation of a new governance. The main element of the new strategy was the decision, apparently contradictory to the initial ambition, to develop the university according to a more traditional pyramidal model, namely the establishment of an increasing number of bachelor's degrees, whether pursued or not by master's programs and, where appropriate, doctoral programs.

These different training programs have been accredited, respectively, in 2017 for bachelors⁷, in 2017 and 2022⁸ for masters. If the rate of transition from bachelor to master is still low in Vietnam for reasons on which this report will return, the result obtained has been remarkable, since in 2023 the number of students has increased significantly. The courses offered increased also in number and diversity⁹, and more generally the visibility of the university improved significantly locally and nationally, as well as internationally.

What could have appeared as a diversion or a "trivialization" of the initial will of the USTH founders, has, on the contrary, proved to be a profitable strategy, also carried by a new governance team that has already shown a certain effectiveness despite the still very modest size of the institution¹⁰. To the point that even the most virulent critics seem now convinced that this new strategy is the right one¹¹, especially within the Consortium of French institutions that contributed to the birth of the institution and that have carried out the trainings from the beginning, together with their Vietnamese colleagues.

An alternative was therefore conceived by the university governance, regarding the accreditation of its courses: either wait for the normal accreditation deadlines for each type of degree or take an additional step by requesting an accreditation of international level, in this case that of Hcéres, valid for the entire institution. Hence the request made by USTH to Hcéres as a quality accrediting body, not to simply re-authorize its diplomas, but to accredit the institution itself.

⁵ The University of Science and Technology of Hanoi (USTH) has transmitted to Hcéres a self-evaluation report (SER), accompanied by many other documents, on which this report is based. See above the presentation of this self-evaluation report.

⁶ See the text of this agreement, signed on November 12, 2009, in document T01.

⁷ Accreditation granted by Hcéres.

⁸ Accreditation by Hcéres granted for the first time in 2017 and renewed in 2022 cf. document T08.

⁹ Rapid growth from 2018, reinforced at the end of the Covid crisis, and seeing the university increase from about one thousand students to more than double in 2022, mainly under the effect of entry flows into bachelors. See SER p.10 and document T05.

¹⁰ Such an essential strategic element, was not initially understood by EC. Only interviews on site allowed to understand it.

¹¹ See the interviews held during the visit, notably with representatives of the Consortium.

That the institution appealed to Hcéres rather than to one of the many other accrediting bodies appeared in the continuity of its creation by France jointly with Vietnam, and as reflecting its attachment to French institutions and, despite teaching exclusively in English, to French culture.

FIELD 1: STRATEGIC AND OPERATIONAL MANAGEMENT

Standard 1: The institution defines its institutional positioning at local, national, and international level.

A progressively defined positioning

The specific status of USTH as a Franco-Vietnamese university created within the framework of an intergovernmental agreement immediately provides it with a singular positioning, both nationally and internationally¹². However, USTH was legitimately concerned not to be satisfied with this "sovereign" creation and had difficulties to quickly find its place in the Vietnamese academic and scientific landscape. Because, despite this specific act of creation, the institution is a public university under Vietnamese law that must assert itself as such in its host country.

As the preceding introduction reminds us, the positioning was not found immediately. We can even consider that the founders of the university made a strategic appreciation error by considering that Franco-Vietnamese collaboration should mainly proceed from post-graduate training, such as master's or doctorate, in a probably erroneous vision of the desired role for the Vietnamese university in its political, economic, and social context. The two intergovernmental agreements of 2009 and 2018 strongly emphasize the role of the university in meeting the real needs of the country, in its ability to adapt as best as possible to the Vietnamese labour market and to produce the qualifications required by the country's state of development.

The strategic mistake initially made was to consider that such a university could be launched and survive on a sufficient scale by post-graduate training, certainly of quality, but whose need was not sufficiently felt in Vietnam or were already satisfied by existing universities, especially the most important ones of them¹³. Even if the choice of English as the language of instruction could grant a certain singularity to the institution, it could not be sufficient to allow this new institution a satisfactory development.

Hence the new positioning adopted, that of a university building like any other a base of "bachelors"¹⁴ in specialties deliberately designed with reference to the needs of the labour market, with the ambition to gradually encourage a growing share of its graduates to continue towards the master's degree and then on a finer scale towards the doctorate.

With the delivery of teaching in English supported by a Language Centre ensuring sufficient competence of students in this language (and delivering complementary teaching of French), USTH thus finds a triple singularity likely to make it more visible in an already well-stocked Vietnamese university landscape¹⁵: i) a deliberate choice of specialties focused on the analysis of the labour market needs, ii) a much more qualified faculty than the average¹⁶ and iii) a link with research strengthened by collaboration with the Consortium of French institutions¹⁷ that played a founding role from the outset.

An efficient and convincing positioning at all levels

This new positioning quickly proved to be effective since for five years the numbers have continued to increase, the bar of 2200 students having been crossed at the beginning of the 2022-2023 academic year¹⁸.

¹² See the two intergovernmental agreements mentioned above, which presided over its birth and then its consolidation.

¹³ As notably HUST or VNU in Hanoi. But their size is hugely more important (about 50.000 students each)

¹⁴ Equivalent to the licence's degree in France (although bachelors also exist today in France). 16 bachelors are set up and acting today. See note 1 supra and document "Characterization Sheet" p.3-4 for their precise list.

¹⁵ There are now at least 280 universities in Vietnam.

¹⁶ USTH says 85 percent of its faculty is PhD-holders, compared to an average of 30 percent for other Vietnamese universities, apart from larger ones. Such as, for example, Vietnam National University (VNU) or HUST.

¹⁷ The composition of this consortium has varied over time, from 40 establishments to 30 to-day. This variation cannot be considered a priori as a weakening but rather as confirmation of the real interest shown by the institutions in this collaboration. It will be seen later that this consortium could also be further expanded. See document provided by USTH listing these establishments and USTH Strategic Plan Document (SPD) p.28. Created in 2010, at the same time as USTH, the consortium intends to promote the cooperation between USTH and French higher education and research bodies. It is acting through two main orientations: contributing to the USTH Departments' development (masters' creation or admitting Vietnamese students in French laboratories); and participating to doctorants' complementary training. To-day the consortium is composed with 22 universities, six "Grandes Écoles", Institutes or "Comues". For a more precise composition see www.consortium-usth.org and for its missions see Journal Officiel July 1à, 2023. Because of the dismissal of the former president Bernard Lagube, after an interim made by the Principal Rector Jean-Marc Lavest in 2022, a new president has been elected on July 1, 2023, Professeur Jean-Paul Deroin, from Reims University.

¹⁸ Cf. document CS, USTH – Characterization Sheet – March 2023. In 2022-2023, there were 2074 students in bachelor, 138 in Master and 40 in PhD D for a total of 2252 students.

It is thus very interesting to note that the structure of the university, which today gives pride of place to bachelors¹⁹, initially appeared to the expert committee as excessively focused on this first degree and not in keeping with the image of excellence that seemed to have characterized its origins. But the exchanges with interlocutors of all types met by the expert committee made it possible to better understand the need to go through this phase of expansion of the bachelor's degree, due to the double fact of the strong demand expressed on the Vietnamese labour market and the still strong reluctance of students to continue their studies beyond, resulting in a still modest rate of transition from bachelor to master's degree. This reluctance is logical at the current development stage of the country. It is also reinforced by the cumbersome investment for families represented by the extension of fee-paying studies, without a real system of incentives for students, for example as grants.

The self-evaluation report (SER) is curiously rather discreet about this change in positioning, perhaps in order not to awaken controversies that were lively when it occurred. Hence the initial question of the expert committee very quickly swept away by the on-site visit and interviews. On the contrary, all interlocutors of the expert committee confirmed that USTH had finally found its place and was able to develop the strategic ambitions reflected in its Strategic Plan Document (SPD) adopted for the period 2022-2030²⁰.

The expert committee considers this positioning not only credible but essential to allow USTH to hold today its place in the Vietnamese university landscape.

Standard 2: Based on its positioning, the institution defines a strategy at local, national, and international level, which it translates into operational objectives and which it monitors.

After the positioning recovery undertaken at the end of the 2010s²¹ and the enrolment growth resumption reflecting its exit from a certain impasse aggravated by the Covid-19 crisis, the institution has indeed endeavoured to define a strategy clearly established in the strategic orientation document already mentioned (SPD).

This document, validated in May 2022 by the University Council after having been the subject of a long internal consultation, is presented as the strategic path leading to the 20th anniversary of the institution, in 2030. From the perspective of its three fundamental missions, training, research and technology transfer, and quality of student and campus life, it proposes a "founding vision" based on six main ambitions:

- **Strengthen the visibility, attractiveness, and leadership of USTH.**
In the highly competitive context of Vietnam, this first ambition makes more sense as USTH starts from afar given its youth. **But its singular assets, particularly in terms of its quality of the faculty or in terms of research and support on a strong Consortium of partners, make its ambition credible, both within Vietnam and ASEAN.**
- **Position its research in Science and Technology in third rank of Vietnamese universities.**
In the Vietnamese context, **USTH seems able to play its card here.** Already the second institute of VAST for its publications, the doubling of its faculty (subject to quality recruitment) and the corresponding extension of laboratories (in human potential, equipment, and specialization fields) can allow it to achieve such an ambition behind heavier and more confirmed institutions such as VNU or Polytechnic Institute of Hanoi (HUST). **However, it will have to strengthen its research partnerships beyond the support of the French Consortium alone.**
- **Innovate towards dynamic, inclusive, and open courses towards industry and entrepreneurship, and become one of the best universities in the choice of science and technology students.**
The ambition is conditioned by the choice of a lucid and coherent training strategy. Lucid about the analysis of the real needs of the country and coherent in terms of pursuing studies, reception capacities and working conditions.
It is therefore also a great governance challenge searching the adequate means for this increase in staff, the expansion of spaces, essential equipment, and the regular renewal of training. The question of training supply has already been raised. Today it thus appears clearly unbalanced at

¹⁹ The percentage of bachelor students is indeed very high and could appear as that of a small local university focused on the first cycle. Thus, the following evolution can be observed in the ratio of the number of students enrolled in bachelor's and master's degrees respectively:

- 2019-2020: 762 B, 110 M or 14.4%
- 2022-2023: 2074 B, 138 M or 6.7%

The number of PhDs increased over the same period from 22 to 40.

²⁰ Cf. document validated on May 5, 2022, by USTH University Council.

²¹ The accreditation delivered in 2017 by Hcéres gave evidence of such new strategy.

Bachelor level, where out of 16 specialties, (ICT) represents a third of the students and five specialties three-quarters of the students. This certainly does not imply that other training courses are not relevant, but it requires the institution ability to know how to regularly question its training offer, to know how to grasp the new avenues that are emerging and to anticipate the needs that are drying up.

Even if the passage rate to master's degree is still low, on this point also the question of supply remains raised compared to the only 6 masters existing today²².

The attractiveness of students will also depend on other criteria such as the living and working conditions of students and staff. Hence the importance of the installation on the new campus at Hoa Lac and the ability of USTH governance to solve all the problems relating to the installation on site, the quality of life on site, as well as other adjacent issues, including those of transport to the site thirty kilometres away from the capital city or student housing. As for registration fees, this point is not necessarily the most dissuasive in the context of a Vietnam for which price can be synonymous of quality and where the low tuition fee for students will have disappeared from all universities, even public ones. But it can play on the margin.

- **Think about social and cultural policy in a pragmatic, inclusive and altruistic way by making the USTH community a university model to follow.**

This ambition goes beyond the ability to provide a training supply adapted to the country needs and facilitating the professional integration of students. It affects the living and working conditions mentioned above and therefore the ability of governance to find solutions adapted to the new constraints imposed by the new site by 2026 and beyond. These constraints are numerous and well identified a priori by USTH. But there is currently no guarantee of its ability to cope with them, especially since the horizon itself of this installation is not yet clarified. Similarly, the modalities of installation of training or research activities between the two sites are not yet specified since USTH seems to have chosen to keep a building within the VAST campus in Hanoi. From this distribution may arise other questions or constraints likely to complicate the desired community life. **Faced with such a noble ambition, the strategic importance of which can easily be understood, the institution does not yet have all the elements necessary for operational decisions.**

- **Prepare for major societal transitions.**

If the World Bank forecasts by 2035 a transition of Vietnam to the category of upper middle-income countries, USTH logically sets itself the ambition not only to follow this progression but to anticipate it by providing the country, through its scientific fields, with the human potential capable of animating the corresponding value-added chains. Hence the necessity for USTH to keep attention, vigilance, and flexibility in the training offer, in terms of specialties and levels of training. We can think as USTH does, about a Vietnamese economy based on a "strongly connected Industry 4.0, producing goods but also digital data... allowing (control) of the entire production process", but it is also likely that at such a horizon (2035), the economy will be in a more composite form.

Subject to the successful installation in Hoa Lac, the ambition thus targets the most advanced sectors of the economy and places the USTH in a singular position that seems within its reach, even in view of its size destined to remain modest.

- **Assume and control its growth by investing in management tools.**

The challenge here is heavier because the growth objectives are ambitious: to reach 5,000 students in 2030, more than a doubling in seven years, and double its faculty to 200 teachers. USTH includes in this ambition an extension of its operating sites. To cope with this, the plan is to move to a new site (Hoa Lac), probably by 2026, multiplying by ten its today' surface area, and possibly make a breakthrough in the south of the country in Ho Chi Minh City. **Such a development cannot take place without the prior implementation of steering and management tools that the institution does not yet have and that it does not control.** If the current team seems to assume such a great ambition, and subject to its continuity and strengthening, there is a considerable challenge for it in terms of finding means as well as in terms of adequate tools. **This is clearly a fragility in the proposed strategic construction, for which several uncertainties remain.**

The first uncertainty concerns the financial perspective in the context, described above, of the Vietnamese Government's desire to give full autonomy to public universities by gradually phasing out any subsidies to them unless they are subject to targeted calls for tenders in training or research. The governance will therefore have to draw conclusions adapted to the new campus at Hoa Lac and its considerable surface, or even to the simultaneous maintenance of the current site and other possible extensions, particularly in terms of the registration fees amounts as well as in search of financial support of all kinds, including sponsorship. The second uncertainty concerns the timing according to which the Hoa Lac site will be available for USTH as for other scientific or economic entities likely to settle there. This calendar, as well as that of other entities, can lead to many consequences in terms of collective development or services likely

²² On the map of master's courses there are currently only 6 master's degrees at USTH (compared to 16 bachelors) whose list is provided by document CS p.3-4

to greatly condition life on the site. Finally, USTH is likely to face with new constraints in such a relocation, generated by sometimes rigid local rules.

In conclusion, the strategy proposed by the USTH is ambitious and apparently well suited to the motivations of the Vietnamese government as well as to the reasons for its creation after a riskier beginning. It is also supported by a young, motivated, and enthusiastic team. But it will soon find itself confronted with the uncertainties of the Hoa Lac site planning and its ability to cope with the requirements of this new site, without which any prospect of growth will be impossible. **A strategy therefore credible, with achievable objectives, but still highly risky because of these uncertainties.**

Standard 3: The institution is involved in its environment and develops a partnership policy as part of its strategy.

The new positioning adopted at the end of the 2010s and the resulting strategy displayed for the period 2022-2030, has the virtue to encourage USTH to extend its partnership network beyond a partnership excessively limited to its partners in the French Consortium at the origin of its creation²³.

It is therefore in several ways that the partnership is an essential element of the USTH's strategy. First, it is very explicitly included in the specifications of the two intergovernmental agreements as an imperative condition for its development. It can indeed enrich the training offer and contribute strongly to the attractiveness of students and professors, it can nourish research activities through successful collaborations, it can contribute to the search for new resources that the increase in registration fees will not be enough to fill in face of the reduction in public subsidies.

It is therefore now available at several levels, local, national, and international, and it is a key element in the future strategy for the period 2022-2030.

The SER mentions many partners²⁴, mainly academic entities, but also, although in a more limited way, economic partners.

Partnership at local and regional level

At the local level, these are first and foremost partners within VAST in terms of training as well as research or even development or provision of premises. These are also other universities mainly in the north of the country, but also since 2018, agreements to extend the influence of USTH to the centre or south of the country. Training in the pharmacological field has also led to contracts with hospitals in a significant opening to the medical world. Similarly, aeronautical training has led to real collaborations with groups such as Vietnam Airlines and Airbus. Concerning the regional neighbourhood of Vietnam, such as Cambodia or Laos, relations seem to be still weak.

Partnership at international level

At the international level, the partnership remains mainly focused on France and the members of the Consortium supporting the institution²⁵. It should be recalled that these partnerships aim to ensure part of the teaching of USTH and that the French government, through the subsidy granted by the Ministry of Higher Education and Research, supports the teaching hours thus delivered. But it might be suggested that the **Consortium could be enlarged to other partners** assuming a similar role in teaching and research. **Not only French or European partners, but also Asian partners at large.**

More recently, partnerships have been established with Japan, South Korea, Taiwan, and Thailand, but they are still limited in scope and focused mostly on training, particularly in terms of student exchanges.

In this regard, it appears necessary that the strategy of increased visibility, attractiveness, and influence of USTH, desired by the institution in the framework of its policy document for the coming period, develops through a more systematic approach of potential partners in the ASEAN community.

Two types of approach can also be suggested: a more academic one, focused not only on student or teacher exchanges but also on research in order to expand the USTH teams; the **other is more economical** with business partners aiming to go beyond the reception of trainees by trying, for example, to invent a form of Vietnamese-style work-study program or by generating demand in terms of research or technology transfer. **The USTH could then appear as a leading university in this field in a country, or even a subcontinent, where the culture of the university/business relationship is still embryonic.**

²³ See above note 17

²⁴ SER pp. 16-17. The report mentions more than 100 agreements valid today, 70% of which concern an international partner.

²⁵ Cf. note 17 for the list of these establishments, 40 at the beginning, reduced to 31 today.

The creation within USTH of a department dedicated to research, innovation, and technology transfer (DRITT) and its recent reinforcement is a good organizational disposal in the desire to develop this essential aspect of the 2022-2030 strategy. However, USTH must ensure that the human and financial resources necessary for the vitality and dynamism of this department are guaranteed.

In conclusion, USTH is fully aware of the challenges of developing enriched partnerships. Its DNA, as its officials like to say, amply testifies to this. The modest size of the institution will never allow it to forge too many partnership links, it must even be careful not to multiply unproductive relationships. But it can focus its efforts both on a few privileged partners themselves, for example, well connected with the French Consortium, or even called to be part of it, as it can help to encourage Vietnam to develop the university/business partnership in the form of apprenticeship, and direct technology transfer. **If it knows how to release the means, the USTH seems able to achieve it.**

Standard 4: The governance of the institution is based on an organization, communication and information system adapted to its strategy.

Governance

A singularity of USTH is to be directed by two rectors, a Principal Rector who is French and a Rector who is Vietnamese. It results from an original arrangement of the French-Vietnamese Agreement signed by both countries in 2018. It thus confirms the shared will to set up a double command for managing USTH.

Besides the two rectors, there are three governing bodies: the Senate, the Science Education Council (SEC) and the University Council (UC). Two are consultative: the Senate and the SEC. Only one is deliberative: the University Council.²⁶

The Senate, chaired by the Principal Rector (PR) (the French one) or his representative, proposes to the UC's approval, development and financial plans, changes related to departments and training programs, recruitment regulations.

The SEC (established by a Principal Rector's decision applying a UC deliberation), is also chaired by the Principal Rector. It is also an advisory council to help Senate and UC in the training and scientific research fields to define the strategic orientations, submit lecturers and researchers for the recruitment committees' membership and propose scientific projects and their participants. The SEC (former "Academic Council") is composed by 30% of Directors of Department, 50% of lecturers and researchers, 20% of scientists outside the university. The term of this council is the same as the Principal Rector's one²⁷.

The UC, chaired by the VAST Vice-President is the deliberative council. It decides notably the strategic orientations and the resources use. The UC members are appointed by the President of VAST, after a proposal by VAST for Vietnamese members and by the French Embassy in Vietnam for French members.

In UC, there is no staff representative, only internal and external stakeholders. The two Rectors are only invited. The UC Vice-President for the Vietnamese side is the VAST director of organization and personnel. The other Vice-President for the French side is one of two representative members of French government (MESR).

All bodies provide reports signed by their chairmen and a secretary.

According to the Principal Rector²⁸, UC meets only once a year, but Senate and SEC can be activated several times if required.

According to the representative's members of the advisory councils²⁹ who were interviewed, staff can easily reach them about problems they meet.

Nevertheless, the expert committee pointed out the fact that, according to Vietnamese law, and regarding staff representatives, personnel and students are Senate's members only, and some lecturers and researchers are members of the SEC. **There is no representative of the personnel or student in UC³⁰** as composition defined in AIG.

Rectors are appointed by decision of the VAST President.

The rectorate is responsible of the UC's deliberations implementation and provides an annual report on activities which is submitted to VAST and MoET for the Vietnamese side, and to MEAE and MESR for the French one. The Principal Rector (PR) and the Rector are both the main university leaders and are responsible regarding the

²⁶ Decision No. 2557 (2016) by Prime Minister about "Regulation on organization and operation of USTH and the Charter on the organization and operation of UHST.

²⁷ According to the Self-evaluation report p 20.

²⁸ Interview "Final meeting with Principal Rector and Rector"

²⁹ Interview "Representative panel of Senate and Science and Education Council members"

³⁰ Nevertheless, some administrative staff are members of another body without deliberative power, the "Conseil de Perfectionnement"

Vietnamese law, VAST and UC.

The two Vice-Rectors (VR) are proposed by the Principal Rector and the Rector, approved by CU and nominated by VAST.

The Vice-Rectors are helping the PR or the Rector on their fields according to their abilities. They benefit from a PR/Rector's delegation of signature in different fields³¹.

Regular Rector Board, or directions' board meetings take place each week.

The Rectorate is assisted by units. Each working field is assigned to only one unit to act as the contact point. When a working field is concerned by many units, one unit will act as the focal point and other units shall coordinate in monitoring and handling³².

Among these units, are the academic departments which can contribute to working groups organized by the Rector Board (for example, the self-evaluation report or the USTH's SPD draft).

To conclude, without being too descriptive, the expert committee considers that the decision chain, the Rectorate's and unit's missions are clearly defined and implemented.

There are no details about elections modalities neither for Senate nor for SEC, neither for competences, responsibilities, and operating procedures of the SEC.

UC meets physically once a year instead of 2 times, but can be activated by electronic decision. SEC and Senate meet several times a year depending on the agenda³³.

The expert committee considers that these points must be corrected.

Communication

The external communication strategy comprises mainly an annual communication and a plan³⁴ developed by the marketing, communication, and brand management department. It is mainly focused on admission marketing (53% of the forecast budget in 2023). Digital marketing, press-TV and promotional products represent more than 60% of the forecast budget³⁵. Digital tools such as social media are used. There is no graphic charter but some templates are not available on the website. The department organizes the link with the future students. It organizes "open days" and participates to meetings in high schools or to a school tour. And each newcomer receives a kit dedicated to its future arrival.

The internal communication is focused on the official website where all information about studies (timetables for example) are published either in the student affairs section or in the academic departments' pages. They send once a month a newsletter. There is no intranet, Digital Working Environment, Electronic Document Management are managed by the administration office.³⁶ It must be noticed that the brand "USTH" is not registered.

In conclusion, external communication highlights correctly the institution identity and originality. But the way to a better visibility must be improved³⁷. An internal communication must be better deployed, not only to inform staff and students, but also to help them to better understand the decisions taken by authorities.

Information system

USTH uses **Google Workspace for Education** for managing email addresses and inboxes and **Google Drive** for sharing documents. The other information systems are: **EdumanUni** for student's management by the department of academic affairs (DAA); **Misa** for the department of accounting, **Online Admission** for student's registration by DAA; **Equipment Management** by the department of equipment management and Moodle for learning.³⁸

But the main project by the year 2025, managed by the IT department concerns a new integrated ERP system developed jointly with Thuy Loi University, of which characteristics are quite similar. It is forecast for 2025, but it is

³¹ Appendix G19 Authorization by the Rectors to the Vice-Rectors to sign documents - 2022 - Self-evaluation report.

³² Appendix G11 Regulation on functions and tasks of units of USTH – 2021 and Appendix G18 Organization chart

³³ Art 9 Charter on the organization and operation of USTH.

³⁴ Appendix G24 Communication reports and plans 2018-2019-2022 - Self-evaluation report

³⁵ P 21 Self-evaluation report

³⁶ Interview "Department of Marketing, Communication and brand management"

³⁷ Interviews "Panel of external partners (final panel TBC)", "Panel of students (Bachelor, Master and PhD)", "Panel of Alumni"

³⁸ P 22 Self-evaluation report

complicated to develop for the LMD system being used by USTH only³⁹.

The Working Group in charge of the new integrated ERP is focused on the academic department's needs, but not necessarily on the other units' needs as accounting and finances or cybersecurity. EC wants to draw USTH's attention on this.

Standard 5. The establishment has a global quality policy.

USTH will reinforce its internal evaluation by the creation in May 2023 of a new department in charge of quality assurance⁴⁰ for training and research.

At the present time, quality is managed by the department of academic affairs overseen by one Vice Rector, helped by a quality contact person in each department or unit. But it indeed concerns only training⁴¹ and USTH seems sometimes to confuse quality and evaluation⁴².

Quality policy is thus only starting in USTH, which is usual in a still young university.

Admittedly, a working plan in quality assurance for training programs is built each academic year since 2021/2022⁴³ by the department of academic affairs and is published on the website. Admittedly also, "Conseils de Perfectionnement" are organized in each academic department⁴⁴ and regular surveys on training programs are carried out, involving students, alumni, and companies, to obtain their feedback. But there is no action plan adopted for training after the survey results⁴⁵ as part of a continuous improvement process. The global quality policy does not involve students.

As for the internal evaluation, apart from proposals to the rectorate after the annual general meeting on the report and action plan developed by the administration and academic departments (quantitative and qualitative data collection) for the following year and required by VAST⁴⁶, nothing has been yet done in accordance with article 7 of the Charter on the organization and operation of USTH dated from 2016. **There is yet neither quality processes, nor corresponding specific tools or methods, to convince the expert committee that a quality policy has been implemented. The expert committee encourages USTH to launch decisively such a work.**

Standard 6. The institution manages the implementation of its strategy by relying on forecasting tools, budget programming and a structured internal management dialogue.

Sustainability

The specific financial mechanism

The USTH's specific financial mechanism corresponds to a public and non-business institution, overseen by VAST⁴⁷.

According to this specific financial mechanism⁴⁸, USTH is autonomous for developing and regulating fee rates (tuition fees, admission fees) in accordance, based on the training costs. USTH's Principal Rector defines fee rates and submits them for approval to University Council.

Likewise, USTH's Rector proposes a financial estimation for the planned year and reports to VAST⁴⁹. The planned budget includes the fundings coming from State budget and foreign supports.

USTH's properties management must be indicated in its Internal spending regulation⁵⁰.

³⁹ Interview "Information Technology (IT) Department"

⁴⁰ Appendix G17 Charter on organization and operation of USTH – 2016 – Art. 7 - Self-evaluation report and Interview "Quality Assurance activities"

⁴¹ P 23 Self-evaluation report

⁴² Interview with Services.

⁴³ Appendix G25 Plan of examination and quality assurance in 2021-2022 – Self-evaluation report

⁴⁴ Appendix G30 Guidelines on CdP - 2021 - Self-evaluation report

⁴⁵ Interview "Panel of students (Bachelor, Master and PhD)"

⁴⁶ P 23 Self-evaluation report

⁴⁷ Appendix G4 Decision on specific financial mechanisms USTH – 2021 - Self-evaluation report

⁴⁸ See art. 2.2. a specific financial mechanism.

⁴⁹ See art. 4.1.a

⁵⁰ See art 4.2.a.

Budget

Financial sources of the University are provided by the Vietnamese Government for regular operations. Initially, till to 2020, Vietnamese State' budget supported 50% of budget⁵¹, excluding financial support from France. The rest came from students 'fees. But the decision of Vietnamese government to reduce progressively its subsidies, and to make financially independent the universities, has now strong effects.

Thus in 2023, the budget resources came from tuition fees (78%), from State (13%), and from research contracts (9%). The expenditures concerned mainly wages (39%), pedagogy and training (20%), research (15%), functioning (9%), social funds (7%), investment funds or non-business activities (7%), and marketing (3%).⁵²

For non-regular operations, such as investments the rule is different. A good and important example is given by an Asia Development Bank's (ADB) loan used for financing equipment in laboratories and relocating USTH in Hoa Lac.

The global budget is thus made by Vietnamese Government's subsidies including tuition fees and other training fees, and revenues from research, scientific and technological services, technology transfer, etc.⁵³

From the French side, the support is made with a subsidy from French MESR (about 100.000 €), allowing to finance training missions provided mainly by French Consortium. It is also composed with two cooperation posts provided by French ministers.

The budget is well balanced but doesn't integrate neither the ADB loan for scientific equipment and the new campus nor the equipment's or buildings depreciation.

Financial results

For past years, financial results are positive. It allows USTH to devote at least 25% of them to investment and about 75% to additional incomes, rewards or welfare operations for staff, faculty, or students^{54,55}.

The financial results evolution is well monitored by the department of Accounting - Finance.⁵⁶

Investment fund

The investment fund (Fund for development of non-business activities) can be used for buying new equipment⁵⁷ and even paying the costs of maintenance and fluids or the next moving to the new campus⁵⁸.

The university's Investment (new campus, facilities, and equipment) is paid by the government thanks to an ADB Loan. The infrastructure and other equipment's maintenance is paid by the Investment fund.

On-site it was said by interlocutors from staff that the investment fund should cover the maintenance cost, but a doubt remains concerning the equipment replacement costs.

The internal spending regulation

A decision of USTH's Rector concerning internal spending regulation has been promulgated in 2022 after a meeting with USTH staffs and lecturers. This is a good signal for social dialogue within the institution⁵⁹.

The internal spending regulation of USTH is the basis for VAST and other State bodies to monitor and control the expenditures⁶⁰.

It also gives a good guideline for salaries, allowances, expenses for technical activities and management, support for scientific research.

Wage bill

According to university, the wage bill will increase strongly until 2030⁶¹ because of doubling staff and faculty and should reach about 40-50% of the budget.

EC noticed that there is yet no ERP to precisely follow the wage bill⁶². A simulation of the human resources growth

⁵¹ P 24 Self-evaluation report

⁵² Self-evaluation report P 25.

⁵³ See art. 2 Decision on specific financial mechanisms USTH – 2021

⁵⁴ Appendix G4 decision on specific financial mechanism-USTH-art.3.4-SER

⁵⁵ Appendix G31 Internal spending regulation 2022 art.28-SER

⁵⁶ Interview "department of Accounting – Finance"

⁵⁷ Appendix G31 Internal spending regulation – 2022 – Art. 29 - Self-evaluation report

⁵⁸ Interview "Administration office" and "Final meeting with Principal Rector and Rector"

⁵⁹ Appendix G31 Internal spending regulation – 2022 - Self-evaluation report

⁶⁰ Appendix G4 Decision on specific financial mechanisms USTH – 2021 - Art. 4.2.a - Self-evaluation report

⁶¹ Self-evaluation report p.27

⁶² Interview on site with services.

linked to the progressive students' number increase until 2030⁶³ has been made but it does not integrate precisely all the variables or possible increments as retirements⁶⁴, or unforeseeable expenses due to the relocation outside Hanoi in the new Hoa Lac campus.

The financial autonomy by 2025

USTH aims at being an autonomous institution by 2030. It corresponds to a progressive and voluntary financial disengagement of the Vietnamese government by 2025⁶⁵. French government intentions are not known to-day, but it could be likely the same.

USTH's SPD for 2022-2030 defines the annual objectives and means of the increasing financial autonomy till 2030 with a milestone in 2025⁶⁶.

According to the university's simulations⁶⁷, tuition fees will represent 85% (78% today) of the budget's incomes by 2030.

To conclude, **the expert committee considers that the USTH's specific financial mechanism and the ADB loan represent a real asset for the university and its development.**

Nevertheless, a question remains: the mechanism is supposed to end by 2025 (as well as the IGA's end⁶⁸). Hence an uncertainty about the international agreement renewal and an effective relocation in Hoa Lac.

Costs analysis

The economic model of the university is based on its student's flow and tuition fees incrementation.

The training cost is calculated each year including equipment degradation⁶⁹ and maintenance costs on the present campus (2600 US \$ / year / student).⁷⁰

Tuition fees will progressively reach 3 500 US \$ by 2030 but will stay lower than the fees for the 2 best science and technology universities in Hanoi.

So, the economic model seems solid to EC, but it supposes that the support from the French side, namely the Consortium, will continue and that the depreciation costs or already quoted expenses will be included in it.

Management dialogue

The management dialogue is not formalized in a precise process but takes place every year between the departments and the rector board concerning human, financial and equipment resources⁷¹. Due to USTH's small size today, it is convenient and looks enough. **But for EC, a question remains about the future and the size swelling.**

Standard 7. Human resources policy and the development of social dialogue reflect the institution's strategy and contribute to the quality of life at work of its staff.

Human Resources Policy

Yet there is no real Human Resources policy, probably because of USTH small size. It must be implemented soon. Nevertheless, there is already a simulation till 2030 with the increase of the PhDs' (x 4.5), lecturers (x 2.6), administrative staffs (x 1.3) with a decreasing student/lecturer ratio till 2030⁷².

There is also a regulation concerning the selection of lecturers, able to participate to the governmental Project 89^{73,74}.

⁶³ Self-evaluation report p 28

⁶⁴ EC understands that, because the average age of staff and faculty is quite low, about 40. Nevertheless, it must be foreseen as soon as possible.

⁶⁵ Self-evaluation report p. 24

⁶⁶ SER p.5

⁶⁷ SER p.26

⁶⁸ Appendix G2. Intergovernmental agreement France-Vietnam for the development of USTH – 2018 - Self-evaluation report

⁶⁹ SER p.26 Degradation rate is evaluated at 5% per year for the equipment provided by the ADB loan. It is perhaps too low.

⁷⁰ Self-evaluation report p. 26

⁷¹ Interview on site.

⁷² Self-evaluation report p. 28

⁷³ Decision taken by USTH' Principal Rector in July 2022.

⁷⁴ G35. Regulation on selection lecturers project 89 – 2022 - Self-evaluation report

This decision is based on the working regime defined for lecturers⁷⁵ (duties, working hours of professors and associate professors: 1 760 hours, 44 weeks of work, 192 hours of teaching) but not for the other staff members (administrative, researchers). A relief is granted to some functions, as rectors or departments heads.

The labour working time for staff is fixed by the Vietnamese law.⁷⁶ And, as already mentioned, additional wages or incentives are authorized as derogations of common Vietnamese law.

Forward management of jobs, workforce, and skills

A document named "Job description for each working position"⁷⁷ describing all USTH's jobs is used as some kind of recruitment policy. For the lecturers and researchers only, it also determines their category of payment. At the end of each year, staff is evaluated. Evaluations are collected and managed by the Department of Organization - Personnel and are used to calculate the annual additional income⁷⁸.

EC must nevertheless regret that neither continuing education plan, nor professional development plan especially for administrative staff, has been set up.⁷⁹

Support for career paths

The quoted documents allow to keep count of the activities and extra-implications for lecturers, researchers, management staff, head of departments, rectorate board and to pay for them.

But, apart from the overtime payment, there is no real promotion policy for administrative staff whose salaries, although doubled compared with other public universities, cannot exceed the limits set by Vietnamese regulations⁸⁰. **It can be a source of difficulties to hire people facing competitive private universities.**

Social dialogue and quality of life at work

For individual social actions, there is the social fund (7% of the budget expenditures in 2023)⁸¹ allowed by financial positive results. Greetings, visit and support to workers in need⁸² are part of its actions. There is also a specific mechanism of solidarity contribution from employees⁸³.

In the context of the moving to Hoa Lac campus and increase in staff, as already mentioned, it is clear for EC, that a social dialogue once a year will not be sufficient⁸⁴. **The expert committee is therefore convinced that USTH must change and improve its strategy for social dialogue.**

Standard 8. The establishment integrates into its strategy a real estate policy supporting its development.

Diagnosis and monitoring of real estate assets.

The university has today around 19 000 m² of facilities for 5 areas on VAST campus (which is the owner)⁸⁵. The Equipment management and the Administration Office departments manage the facilities and report directly to rectorate.

The physical inventory of the equipment is made by the Equipment management department⁸⁶, but there is still no software facilitating such a management.

Likewise, the department manages the room occupation and the equipment use, but some software is perhaps still missing.

There is an access control by key, badge, or fingerprint in some special rooms. But the expert committee noticed that there is no regulation concerning the access for disabled people.

⁷⁵ G37. Working regime for lecturers – 2020 - Self-evaluation report

⁷⁶ Interview "Department of Organization – Personnel"

⁷⁷ SER annex 6

⁷⁸ P 29 Self-evaluation report / Appendix G32. Additional income regulation - 2021

⁷⁹ Interview "Department of Organization – Personnel" and "Final meeting with Principal Rector and Rector"

⁸⁰ P 29 Self-evaluation report / Appendix G31. Internal spending regulation – 2022 – Art 9.1- Self-evaluation report

⁸¹ P 25 Self-evaluation report

⁸² Appendix G12. Draft Working position scheme USTH – 2022 – Art. 32 - Self-evaluation report

⁸³ Interview "Department of Organization – Personnel"

⁸⁴ P 30 Self-evaluation report

⁸⁵ P 31 Self-evaluation report

⁸⁶ Interview Department of Equipment management

Real estate planning and sustainability

Real estate planning heavily relies upon the project of relocation in Hoa Lac and its calendar is depending on governmental decisions. The campus relocation project is externally financed through a \$178 million loan (including a 20 million US \$ share for scientific and educational equipment)⁸⁷. It is also the object of an environmental study.

It is a very good opportunity for USTH because it will have finally at disposal premises able to host all its activities. The expert committee notes with interest that the equipment needs of academic departments for the new campus are already known and planned by the department of Equipment management.

To conclude, the expert committee acknowledges a real estate strategy logically focused on the new campus in Hoa Lac with some uncertainty⁸⁸ about the maintenance costs for the new campus which will multiply its surface by 10.

Such an uncertainty leads the expert committee to suggest to USTH not to be too greedy concerning its premises and to take time before occupying other different campus in Vietnam⁸⁹.

MAIN CONCLUSIONS ABOUT FIELD 1

Significant aspects:

- + Decision chain, the rectorate' and unit's missions, clearly defined.
- + USTH specific financial mechanism with the ADB loan.
- + Training cost calculation.
- + Tuition fees lower than the top science and technology universities in Hanoi.
- + Average age and dynamism of Rectorate and staff.
- + Physical inventory equipment updated.
- + The room and the equipment occupation managed.

Areas for improvement:

- Too few meetings of SEC, Senate, and UC.
- No representative of the administration in the councils.
- No details about elections modalities for Senate or for SEC.
- No details for SEC' competences, responsibilities, and operating procedures.
- Communication to improve.
- A lacking ISS policy.
- A lacking integrated ERP.
- Quality insurance to improve.
- Not enough structured and frequent social dialogue.

EC recommendations:

- The Charter on USTH organization and operations must be updated with the Principal Rector's functions, the SEC creation, and the elections procedures for Senate and SEC, meetings' frequency of each council per year.
- The internal and external communication must increase the university visibility highlighting the success of their students' projects and alumni.
- A Decisional Information System (DIS) must be set up as soon as possible.
- The Working Group for the new ERP should integrate all departments.
- Quality processes must be written down and process drivers must be appointed for each department or unit.
- Students must be closely associated to the quality insurance.
- The quality assurance must adopt some specific tools or methods as the PDCA method. All the administrative staff must be trained in quality.
- It will be necessary to consolidate costs (for training and research) by including indirect costs, but also by integrating a diversified depreciation rate.
- USTH must adopt a continuing education plan, and a professional evaluation plan and professional development plan especially for administrative staff.
- The social dialogue should be more regular in the context of major changes for the university.

⁸⁷ P 26 and P 32 Self-evaluation report

⁸⁸ Final meeting with Principal Rector and Rector

⁸⁹ Self-evaluation report p.15. USTH envisages to keep a building on VAST campus and develop its activities in Ho-Chi-Minh City.

FIELD 2: POLICY ON RESEARCH, INNOVATION AND THE INCLUSION OF SCIENCE IN SOCIETY

Synthesis

Thanks to the progress made in the recent years notably about its training supply, USTH has now achieved the maturity of a research-oriented university compatible with international level standards. With an average of 1,6 SCIE⁹⁰ publications per permanent academic staff in 2022, confirming a steady increase, USTH has become the second most productive institute within the Vietnam Academy of Science and Technology (VAST).

Investigating intensively opportunities for partnerships with French research organisations, beyond the emblematic one currently developed with IRD, should allow to strengthen USTH research portfolio, and develop international cooperation, as well as access to international funding.

While the activities related to innovation and technology transfer are still in their early stages and mostly carried out on an ad hoc basis within the academic departments, it is clear to the expert Committee that the new impetus recently set up to the DRITT (Direction of Research, Innovation and Technology Transfer) department will contribute to harmonize and professionalize the links between USTH and its industrial partners⁹¹.

Standard 9: The institution's research policy defines structural guidelines.

Building up a research-oriented university

With an academic staff composed of 5 Professors, 11 Associate Professors and a ratio of almost 85% (77/91⁹²) lecturers holding a PhD⁹³, USTH features a significant critical mass to train for and develop research activities.

While the Department for Research, Innovation & Technology Transfer (DRITT) was established in the early years of the creation of USTH, its role and the place of research within USTH has been significantly enhanced in the past couple of years, in particular with the opening of a second position of deputy-director for DRITT and the appointment of a vice-rector in charge of research, institutional communication and international cooperation and who is thus supervising DRITT. Hence, DRITT has become the corner stone for the deployment and support of USTH research activities.

With more than 1/3 of funding for laboratory equipment devoted to research activities⁹⁴, USTH has been able to set up technological platforms of high standard. It is worth pointing out that this amount originates mainly from the 190 M US \$ loan contracted by the Vietnamese government with the Asian Development Bank for the development of USTH⁹⁵. The expert committee had the opportunity to visit several of those platforms. On this occasion, it was able to observe that those platforms constitute favourable environments to foster and support interdisciplinary activities. In particular, the expert committee could identify the Fablab⁹⁶, often pointed out during the visit (by USTH members and alumni), as a significant set up and as a shared platform.

A determined publication and project-oriented policy

In the recent years, DRITT's priorities have been given to monitor and increase:

- the number and quality of publications,
- the number and type of research projects and the associated funding.

Progress was achieved on a very convincing way for what concerns the publications. The number of SCIE publication was more than doubled in the past 3 years (from 55 in 2019 to 125 in 2022). While this level of

⁹⁰ Science Citation Index-Expanded (<https://clarivate.com/products/scientific-and-academic-research/research-discovery-and-workflow-solutions/web-of-science/web-of-science-core-collection/science-citation-index-expanded/>)

⁹¹ The interviews with the personnel in charge of the Department, the coordination role and the strategy (support, services, PI management) presented on that occasion, provided objective information about that.

⁹² Data update provided during the USTH presentation by the Rector during the visit.

⁹³ See also SER - page 37 — in average, this ratio is only 30% for other Vietnamese universities (cf. SER p. 41). For 2030, USTH aims at 200 lecturers while maintaining a large proportion (no less than 70%) holding a PhD.

⁹⁴ SER – p. 37: 8.65 Md VND (out of 22 Md VND). For details, see "R16. Scientific Equipment purchases - 2023 - EN.pdf".

⁹⁵ Such a commitment reveals the considerable effort made by the Vietnamese government, without equivalent on the French side.

⁹⁶ See also the Section on Standard 12 for further details on the FabLab.

publication is only achieved by just about half of the lecturers (55), in average, the publication ratio is 1.6 per PhD-holding academic staff in 2022. Moreover, USTH researchers have leading authorship (first author or corresponding author) for half of those publications.

The publications are rather well balanced among the 8 relevant⁹⁷ academic departments, except for what concerns the Information and Communication Technology (ICT) Department⁹⁸. During the visit it was understood that due to the success in the enrolment of students in this Department, the academic staff is being overloaded with teaching duties⁹⁹. Focused recruitments are being planned to cope with this situation¹⁰⁰. Furthermore, it is worth pointing out that such a level of production (not only in number, but also in quality) places USTH at the second rank among VAST institutes¹⁰¹.

Diversification of research funding

Initially, research funding was essentially provided via French Embassy programs. Since 2017, the year when USTH joined VAST, DRITT has been able to develop its own strategy to support research activities within USTH¹⁰². Besides the support set up for Type I (2 years – 350 M¹⁰³ VND max) and Type II (1 year – 50 M¹⁰⁴ VND max) calls for projects, further support programs were initiated in 2020 via “Targeted” projects (3-year – 450M¹⁰⁵ VND max) to promote interdisciplinary projects. In 2022 two additional sets of yearly calls for projects were launched targeting either Top Tier Research Group (TTRG) or Emerging Research Groups (ERG) (1.5 to 3 Md VND¹⁰⁶ yearly for 3 years), this time with the aim of promoting respectively collaborative and exploratory research projects. Evidence of the dynamic infused by those recent initiatives is revealed by the creation in 2022 of two ERGs BioPharma-Environmental Assessment & Monitoring (BEAM) and Sustainable Energy and Environmental Development (SEED), and of one TTRG: PhytoMedicine (Phytomed)¹⁰⁷.

Along the years, the funding available to support research has significantly increased: in particular, it has been multiplied by more than 5 on the past three years: from 1, 7 Md VND in 2020 to 8, 8 Md VND in 2023.¹⁰⁸ This policy has familiarised USTH lecturers-researchers with project-funded research and thus, the redaction and submission of proposals. This has contributed to increase the sources of funding supporting research via external contracts. The related amount has raised to 12, 5 Md VND in 2023¹⁰⁹. While VAST¹¹⁰-funded projects form the main core for those contracts, other sources have emerged¹¹¹ that come from national public funding via NAFOSTED¹¹² and more importantly, during the past two years, from private funding via the Vingroup Innovation Foundation (VinIF)¹¹³.

Evolution of International collaboration and partnership

In that context it is worth noting that two mature research groups created in 2016 within USTH have attracted visibility and interest from French colleagues and beyond:

- REMOSAT¹¹⁴ (Remote sEnsing and MOdeling of Surface & ATmosphere) with CNES, *Observatoire de Paris*, etc.
- CECS¹¹⁵ (Chemistry for Energy Conversion & Storage) with LCC, AMU, Konkuk Univ. (KR), Tohoku Univ. (JP), etc.

⁹⁷ Excluding the Department in charge of General Education that is essentially devoted to teaching.

⁹⁸ This was explicitly reported in 2021 (see “R31. Publications SCIE - nb publishing lecturers - 2021 - EN.pdf”) and this was still the case in 2022: see “R10 - List of Publications USTH - v4 (print for SER-HCÉRES) Summary Details 2017à2022.pdf”.

⁹⁹ More precisely, it was indicated that teaching load in the ICT Dpt. was twice the load in other departments (400h vs 200h).

¹⁰⁰ Exchange on May 3 with members of the ICT Dpt. See also Section on Standard 10 in this Domain.

¹⁰¹ Right after the Institute of Material Sciences – See “R12. Publications SCIE - USTH positioning within VAST - 2023 - EN.pdf”.

¹⁰² The comprehensive strategy has been formalized in a regulatory document issued on August 2022: “R18. USTH regulations on the organisation of research and innovation - 2022 - EN.pdf”.

¹⁰³ This corresponds to about 14 k€ (1 MVND ≈ 40 € or 1 € = 25.000 VND or dong\$).

¹⁰⁴ 2 k€

¹⁰⁵ 18 k€

¹⁰⁶ 120 k€

¹⁰⁷ See Documents R20, R21, R22, respectively.

¹⁰⁸ From 68 k€ to 348 k€.

¹⁰⁹ SER - Figure 14, p. 39.

¹¹⁰ Including during the preceding decade via its Graduate University of Science and Technology (GUST).

¹¹¹ SER – Figure 13, p. 37.

¹¹² The National Foundation for Science and Technology Development <https://nafosted.gov.vn/en/>

¹¹³ <https://vingroup.net/en/business/social-br-enterprise/2477/vinif>

¹¹⁴ REMOSAT is part of the Space and Applications Dpt. Of USTH.

¹¹⁵ CECS is part of the Fundamental and Applied Sciences Dpt. of USTH.

The USTH Consortium has played a major role in the international status of the university with respect to research activities, especially with France¹¹⁶: this was materialised by the large number of PhDs obtained in French universities. Much less exchanges took place in recent years because of health crisis. Also, the funding provided explicitly by the Consortium for research activities has been limited: document R26¹¹⁷ indicates only a support in 2019 for 4 projects with a total amount 1 Md VND.

IRD has been and still is a strong partner. In particular, evidence is given through the long lasting LMIs: DRISA (Drug Resistance in South-east Asia)¹¹⁸ and LOTUS (Land-Ocean-atMosphere regional coUpled System study center)¹¹⁹. While several CNRS Labs and CNES are involved in LOTUS, to date, no institutional partnership has been established with the main national research organisations such as CEA, CNES, CNRS, Inrae, Inria, etc. This is well recognised as a weakness by USTH¹²⁰. Indeed, such partners could play a major role in furthering research activities at USTH and establish new links with the French research community¹²¹. Beyond CNRS that covers the whole spectrum of research areas, a partnership with Inria appears as a priority, and an opportunity to foster the development of research activities on Digital Systems at large within the ICT Department. It is worth noting that the positive evolution of USTH to meet international standards in research provides a favourable context for establishing such partnerships.

The expert committee would recommend to USTH to further develop its cooperation with ASEAN countries. The pilot role that was played by IRD to establish links with some of these countries could be reproduced with the help of other French partners. On that respect, the determination to establish close links with the CNRS Office in Singapore was mentioned by USTH during the visit. Other targets could then include further developing the links existing between VAST and MNHN (*Muséum National d'Histoire Naturelle*) and connecting with Institut Pasteur. A recent agreement signed in April 2023 with the University of Luxembourg exemplifies the vitality of USTH and its attractiveness for European partners.

Standard 10: The institution has a policy resource and support for research.

Partnership with companies

The impediment so far for USTH (a public entity) to have contracts signed with private companies was pointed out to the expert committee as a structural obstacle preventing the university from establishing close and durable links with industrial partners. However, as it was mentioned during the visit, since 2022, it has been possible to create a university foundation, as well as industry-university partnerships based up to 5% of the company's budget. In that new context, joint research Labs might be targets to aim at.

A creative income strategy

Being able to retain/attract top lecturers-researchers is an essential dimension of USTH policy. Still, it is not possible for USTH to compete with the salaries offered by private universities, including VinUni, the university established in 2018 by the VinGroup. Nevertheless, building up on a recent (2021) government decision allowing more flexibility in the management of financial matters¹²², USTH has been authorized to implement a policy where USTHs employees can receive a salary at least twice of the state-imposed salary in public institutions¹²³. Moreover, USTH has been quite "creative" in setting up a comprehensive framework to allow for the provision of extra salary to each employee, and incentive mechanisms such as bonuses and allocations. Towards this target, in the new regulatory context, USTH has been able to allocate 75% of its financial surplus to develop its own income policy¹²⁴. Furthermore, researchers can allocate some ancillary remuneration from their research contracts (with a maximum set at twice the basic salary). Accordingly, the income of a USTH employee is obtained as follows¹²⁵:

Total income = Basic state salary x 2 + Extra salary + Bonuses + Research allocations

This means that the income for an USTH employee is 2 to 5 times higher than the basic state salary.

Outbound and inbound mobilities

¹¹⁶ Other countries include Germany, Hong-Kong, Korea, Japan, etc. (SER p. 36).

¹¹⁷ "R26. Research fundings - 2019-2021-2022 - EN.pdf".

¹¹⁸ <https://www.ird.fr/lmi-drisa-drug-resistance-southeast-asia>

¹¹⁹ <http://lotus.usth.edu.vn/index.php>

¹²⁰ SER - p. 47

¹²¹ See also the Section on Standard 10 for additional benefits from such partnerships.

¹²² Decision 275/QĐ-TTg of 26/02/2021.

¹²³ For example, while the basic state salary for a junior lecturer with a PhD is about 4.5 M VND, the equivalent monthly salary offered at USTH is 9 M VND.

¹²⁴ More precisely, 50% of the surplus is used to pay extra salary and 15% is allocated to an Income Stabilization Fund.

¹²⁵ SER - p. 40.

USTH is well positioned with respect to mobilities (both outbound and inbound). USTH has set up a framework to support the mobility of its employees (lecturers, staff, and students) to strengthen their skills. In 2023, 12 such missions are planned, for a total of 1 Md VND. The new national Programme-89, aimed at providing fellowships to PhD students abroad during the period 2023-2028 is also part of the funding that will be available to support outbound mobility; while no USTH student has yet benefited from such program, it is expected that during next years, about 100 USTH students might benefit from it. **Such a hypothesis is considered by the expert committee as very optimistic and probably not credible.**

Another major dimension that significantly benefits USTH is inbound mobility. Visits span from confirmed researchers, PhD students to 6-month internships from partners of USTH Consortium. In 2022, this summed up to the equivalent of 60 person-months (including 3 IRD full time positions). Projections for 2023 aim at 70 person-months¹²⁶.

A proactive scheme to foster applications to the Doctoral School and provide funding to PhD students

Created in 2014, the Doctoral School (DS) and its today's six fields¹²⁷, is also an objective asset for uplifting the conduct and development of research activities within USTH: since 2018, 7 PhD theses have been defended¹²⁸. For that matter also, USTH has been proactive in offering "Teaching Assistant" doctoral contracts aimed at motivating the top-ranked Master students to apply to the DS. Such a contract improves the status of PhDs students, when compared to the "normal" national regulation that was described to the expert committee during the visit: PhD students could not be funded until they obtained their diploma¹²⁹. In addition to this support, USTH has also proposed a simplification of the delivery of PhD degree: originally, two formal defences (often taking place one year apart) were mandatory. In the updated process, the first defence can simply be implemented as a research group seminar. Furthermore, the real (second) defence should be presented in English and has at least one international scientist acting as reviewer. This new process was first approved by USTH University Council, and it is worth noting that it is quite innovative within VAST, as well. More importantly, during its visit in VAST in 2023, the delegation of Vietnamese Parliament has appreciated the initiative and the process implemented by USTH.

An ambitious recruitment strategy

Recruiting new lecturers-researchers is part of the agenda of USTH to match the target of 200 lecturers-researchers set for 2030 by its SPD. As already pointed out for Standard 9, such an effort is mandatory for the ICT Dpt., but it poses a real challenge due to the attractiveness of the Digital sector that is offering salaries (2000-3000 US \$) that are far beyond the maximum allowed by the favourable scheme set up by USTH. It is essential that USTH develops a strategy to cope with this difficulty. This might include the involvement of staff from companies of the Digital sector.

USTH is prioritising the recruitment of senior researchers. Three main reasons are given¹³⁰: i) consolidate the existing research axes, ii) open new research fields, iii) supervise young researchers (those having benefited of the Programme-89 fellowships). While fully recognising the rationale, the expert committee would like to stress the importance in carefully advocating the choice in order not to discourage talented young researchers and not to hamper their evolution within the university.

An affirmative reach out strategy

As was confirmed during the visit, Vietnamese regulations, at the level of Ministry of Finance, are a hindrance for state-owned universities such as USTH, for accessing international funding, due to the attached administrative delays¹³¹. For projects EU-funded programs, setting up partnerships with French organisations could allow USTH to provide a contribution while projects are being managed in France.

Two forthcoming initiatives, that were confirmed during the visit, reveal the proactive attitude of USTH based on the confidence acquired from the progress made and its will to be more recognised and attractive both at the national and international levels:

¹²⁶ SER - p. 40.

¹²⁷ The six fields are: Pharmacological, medical, and agronomical biotechnology; Advanced material science and nanotechnology; water, environment, oceanography; Information technology and communication; Energy; Space and applications.

¹²⁸ See also Section on Domain 3 for further details on the Doctoral School.

¹²⁹ As was mentioned also during the visit, such an absence of prior funding was detrimental to the recruitment of PhD students. A clear aspiration to enroll for a PhD abroad was perceived which led to a lack of PhD candidates during the 2015-19 period. The new context has significantly improved the situation: 14 new PhD students enrolled in 2022.

¹³⁰ SER - p. 40.

¹³¹ SER - p. 40.

- thanks to the flexibility recently introduced by Decree 109/2022/ND-CP, USTH is planning to create a Foundation¹³²,
- discussions with the QS stars rating system¹³³ have been started with a goal to be listed by 2025-26¹³⁴.

Standard 11: In its policy of innovation and inclusion of science in society, the institution defines structuring guidelines.

A starting innovation policy for USTH and for the country

After a ten years consolidation around training programs, USTH starts thinking about innovation as a catalyst for its teaching activity and the dissemination of science in society. This dynamic has even more weight and merit since technological innovation is not a cultural habit in Vietnam¹³⁵. The ambitious exercise of building the strategic plan for the period 2022-2030 (SPD 2022-2030) highlights two things. First, the institution's desire to capitalize on the existing innovation (i.e., Fablab allowing interdisciplinary between the different departments, scientific cafés open to all persons inside and outside USTH and widely appreciated by students, various conferences, etc¹³⁶). Second, the wish to define new objects (i.e., Innovation Hub, foundation¹³⁷) considering the possibilities left open by the national legal framework. These reflections are in phase with the Hoa Lac Campus project¹³⁸ as an interesting lever for the implementation of new facilities.

The SPD 2022-2030 sets out various quantitative indicators¹³⁹. They reflect a clear desire to make innovation a lever for the development, attractiveness, and excellence of the university. While the 2023 budget includes a line dedicated to the activities of the Innovation Hub¹⁴⁰, the new facilities mentioned above should make it possible to give credibility to the strategic objectives. In fact, current premises are not adapted to this ambition¹⁴¹. The effort to develop quantified indicators in terms of research contracts with industry, patents filed, or start-ups incubated/created is interesting¹⁴². However, it would be wise to define intermediate milestones after the move to Hoa Lac (i.e., 2026 or perhaps later, 2028?) to ensure continuous monitoring of this ambition. Moreover, while the Innovation Hub is a central object of the future innovation strategy, the availability of indicators relating to the implementation and results for innovation enabled by this tool, would be relevant.

A policy supported by means and services

Regarding the resources put in place by the institution, the expert committee (EC) has identified two significant points. First, the recruitment of a second deputy director within the DRITT is a positive sign regarding the priority given to innovation by USTH. **Nevertheless, the expert committee notes with regret the decision to eliminate for next year the budgetary support of the French Ministry of Foreign Affairs (MEAE) for the position of DRITT Director. Such a decision should have a significant impact on the dynamism of the actions in favour of innovation.**

The expert committee considers that the recruitment of a replacement as soon as possible must be a real priority for USTH to maintain the current dynamics on innovation. While two ETIs are funded by the MEAE (and one by MESR), this decision raises questions about the real support brought by French government to USTH. Second, in terms of financing the innovation activities, a foundation seems to be the best solution at this stage. The absence of a critical mass of patents, the lack of complete budgetary autonomy that does not allow management of possible international funding, and the strict framework for managing intellectual property (IP) are generally unfavourable to the definition of a fully-fledged transfer subsidiary. Joint discussions at the VAST level (for example with VJU, VGU) on the implementation of a shared technology transfer organization could eventually be explored. In fact, even though the expert committee sees the need of outreaching and demarcation, this solution could bring economies of scale, notably through the sharing of operating costs. At the same time, USTH could collaborate with other Vietnamese universities to analyse the cost of creating, maintaining, and making it feasible to build a technology transfer centre in its new campus, as mentioned by the decree¹⁴³ linked to the IGA.

¹³² Further related aspects are developed in the Section related to Standard 11.

¹³³ <https://www.topuniversities.com/qs-stars>

¹³⁴ This timeline was indicated during the visit.

¹³⁵ Exchange of May 5, 2023, with a panel of researchers

¹³⁶ Page 43 of the USTH self-evaluation report

¹³⁷ Exchange of May 3 2023 with DRITT

¹³⁸ [Campus - University of Science and Technology of Hanoi \(usth.edu.vn\)](https://usth.edu.vn)

¹³⁹ Final pages of the SPD 2022-2030

¹⁴⁰ Page 42 of the USTH self-evaluation report

¹⁴¹ Page 33 of the USTH self-evaluation report

¹⁴² Page 42 of the self-evaluation report and exchange with DRITT on 3 May 2023

¹⁴³ Decree n° 2020-1269 of October 19, 2020

An improving link with enterprises

Furthermore, the membership of certain large industrial companies in the university's consortium is an undeniable asset. The representation of potential future employers in the governance of the institution allows to adapt its teaching programs and actions in relation with socio-economic needs. The six major areas addressed by the doctoral school are in line with sustainable development issues. In addition, the expert committee notes that the collaborations with industrial partners, particularly within the programs, enhance teaching focused on responsible industrial and technological practices, and especially on the future (i.e., low-carbon aviation) which could facilitate innovation. The multiplication of MoUs (VinGroup, FPT, Vietnam Airlines, Viettel Group, etc.) are promising, especially for increasing opportunities for internships and positions for students. Nevertheless, these expressions of interest (12 currently) do not yet lead to an interesting mass of applied research projects with PhD students¹⁴⁴. Moreover, the expert committee notes that the DRITT role towards researchers remains to be clarified. While some of them may sometimes be in contact with the industrial world, they do not clearly perceive the benefits of a link with DRITT. As researchers are critical vectors for identifying industrial research projects, this point is tricky and should be addressed.

A real attention given to inclusion of science in society

In addition to these initial observations, we note that USTH deploys a range of interesting actions for the dissemination of scientific culture and the protection of heritage. Firstly, international conferences, "Makeathon" events in the Fablab, Doctoral Days, Open Day, «Space Talks», symposia, and "cafés scientifiques" with presentations of research works in progress in the institution's major fields are all complementary practices that reach potentially different audiences in civil society. The outward-looking nature of these events is a real strength¹⁴⁵, which should be amplified by institutional communication based on national (i.e., VAST, industrial) and international (i.e., consortium members) partners. However, the expert committee notes that alumni could be used as vectors for the dissemination of scientific culture, notably as relays for the internal events inside their professional and private knowledge networks. Second, USTH's heritage protection actions take two distinct forms. First, concerning cultural and environmental heritage, certain research themes embody this sensitivity¹⁴⁶, notably on the genomics of rice. In addition, some of the work of the international laboratories LMI LOTUS and DRISA, focus on the preservation of the environment and drug resistance in Asian populations¹⁴⁷. The second one aims at the scientific and technical heritage of USTH. At this stage, only two patents are being filed. However, the DRITT, notably through the new deputy director, is making this subject a priority, particularly during the transition to a university-wide approach to research and innovation on the new campus. On this point, national and international collaborations will enable the institution to enrich its protection practices.

An IP management to be improved

As well as all the members of its consortium, national legal framework on intellectual property (IP) management concerns USTH. This subject will be addressed by DRITT in the coming years¹⁴⁸ to evaluate the opportunities that may be generated by its evolution, particularly in terms of sharing during future international co-supervision of research, or joint work with industry. The expert committee believes that USTH should immediately analyse the IP management and protection processes of its international partners to evaluate the budgetary cost that this may represent and to learn from best practices, to begin thinking about an internal framework on this subject. On the budgetary side, the impact of the current and future decline in public funding on the possibility of developing a real IP protection policy needs to be assessed.

Integrity and research ethics

All these measures are part of an interesting dynamic of global responsible practices. We note the creation of an internal working group on the definition of a regulation on academic integrity and research ethics¹⁴⁹, as well as the revision of the guidelines in this area. Stronger support from VAST on these issues would be valuable, especially in terms of homogenizing policies within its perimeter. However, while the DRITT wishes to align its policy with the United Nations' sustainable development objectives¹⁵⁰, the expert committee emphasizes that a concrete breakdown of this framework into qualitative objectives in USTH's operational roadmap for innovation could inform the definition of a general policy for responsible innovation.

¹⁴⁴ Exchange of May 5, 2023, with a panel of researchers

¹⁴⁵ Exchange of May 5, 2023, with the Life Sciences, Aero, Energy departments

¹⁴⁶ Page 43 of the USTH Self-Evaluation Report

¹⁴⁷ Page 43 of the USTH Self-Evaluation Report

¹⁴⁸ Exchange of May 3, 2023, with DRITT

¹⁴⁹ Exchange of May 4, 2023, with the doctoral school

¹⁵⁰ Page 44 of the USTH Self- Report

Standard 12: The institution pursues a policy of resources and support that benefits its activities in terms of innovation and the inclusion of science in society.

An internal policy to stimulate research and innovation

After a necessary consolidation of its academic model, USTH assumes the need to move to the development of internal policies to stimulate research, innovation, and improved general governance. USTH thus will achieve the 2030 targets¹⁵¹. Even if the latter are considered “ambitious” by the IRD¹⁵², the university is therefore including in its 2022-2030 SPD¹⁵³ its desire to develop effective and numerous collaborations with industry, to promote applied research and to create/incubate start-ups. According to DRITT, the ambition will lay on the future internal foundation. USTH will have to focus on contacting and mobilizing as many partners as possible (i.e., patrons, industrial sponsors, etc.¹⁵⁴) to feed this foundation and make it a tool that meets its ambitions. An internal working group was formed, including the new DRITT Deputy Director in charge of innovation and USTH is imagining ways to serve its innovation policy. For example, as previously referred, the Fablab supervised by three people¹⁵⁵ is an important source of interdisciplinary on innovation. In this regard, USTH appreciates the results of some innovation funding based on precise criteria¹⁵⁶. The supported projects under the USTH-20 envelope within the Fablab are innovative ideas that represent a breakthrough “useful to life”, that is with explicit usefulness and/or benefits to society¹⁵⁷.

New opportunities for research and innovation fundings

In parallel, the autonomy of Vietnamese universities being a recent dynamic, DRITT confirms that if the institution is not completely autonomous from the VAST grants, it cannot position itself on international calls of “Hubert Curien” type. Indeed, the administrative complexity of managing these appropriations would be too great and the collection time too long. With respect to links between research and innovation, the above observation is currently holding back certain internal innovation dynamics, particularly regarding technological exploitation and the resulting benefits. The university’s doctoral school is therefore further analysing national tracks, in particular the calls organized by NAFOSTED, VinIF, and VAST. In 2016, USTH launched internal calls for projects of various sizes. At the same time, the Vietnamese government is trying to remove certain administrative and legal barriers to the creation of joint laboratories between industrialists and academics. The USTH Principal Rector identifies this as an opportunity to provide indirect funding for the institution’s research, and to create new opportunities for innovation¹⁵⁸.

Human resources

The institution is also aware of its human resource needs to achieve its ambitions. The internal working group on the foundation topic is defining a multi-year roadmap for planning the means to achieve the objectives of the SPD on innovation. These resources rely on the future Innovation Hub’s strategy, but also on strengthened human resources¹⁵⁹. However, at this stage the university does not have a formalized process of predictive management of employment and skills, which has the effect of creating a dependence on certain key internal resources. USTH must capitalize on the Hoa Lac Campus project to motivate and create a professional perspective for this pivotal staff, particularly on innovation. This must be done despite a regulatory framework that is binding on certain subjects, such as the management and exploitation of IP. Indeed, several members of the USTH consortium agree on the need to make it evolve, to allow a stimulation of innovation and collaborative research between academics and industry. In fact, the potential for innovation is limited¹⁶⁰, particularly in co-breeding between universities and industry, or even in joint research. This point is strategic, especially for the motivation of researchers who lack visibility on the management of the potential results of their work. DRITT intends to analyse the possibilities, the obstacles, and the needs for the evolution of the framework in its operational roadmap on innovation, and the expert committee encourages it in this approach¹⁶¹.

¹⁵¹ Exchange of 3 May 2023 with the Rectorate

¹⁵² Exchange of 3 May 2023 with non-Vietnamese members of the consortium

¹⁵³ SPD 2022-2030 Section A.2.2

¹⁵⁴ Exchange of 4 May 2023 with the doctoral school

¹⁵⁵ Exchange of 5 May 2023 with the departments LS, Aero, Energy

¹⁵⁶ Announcement on “USTH-20” Program of 2021

¹⁵⁷ Taking again an expression used by USTH site in “Announcement on “USTH-20” Program of 2021

¹⁵⁸ Exchange of 3 May 2023 with the Rectorate

¹⁵⁹ Exchange of 3 May 2023 with the DRITT

¹⁶⁰ Exchange of 3 May 2023 with the non-Vietnamese members of the consortium

¹⁶¹ As part of the ongoing Operational Innovation Roadmap working group

An innovation roadmap to improve

In addition to the above findings, the university does not have an internal economic security policy. Regarding to the ambitions of USTH on innovation, this point will have to be strengthened in connection with the national authorities. While the topic of IP diligence prior to any transfer is not yet on the table, it would be wise to anticipate the scale-up on the new campus, and the strong acceleration of innovation policy in the future. The designation of a referee and the development of economic security and cybersecurity policies would be a definite step forward for the implementation of this ambitious roadmap on innovation. In addition, in the context of the gradual increase in technology transfer, through the development of start-ups, raises the subject of acculturation to entrepreneurship and strengthening skills in finance and management. While the university is setting itself up to create/host three start-ups/spin-offs¹⁶² by 2030, the expert committee considers that the “start-up” program provided in the bachelor’s degree and completed with courses on project management in master’s degree should be strengthened. The feedback from the alumni is unanimous on the interest that could constitute¹⁶³ theoretical and practical lessons in economic and financial matters especially following the comparison with Western standards observed during their internships. The creators of start-ups or transferable innovations are mostly holders of a Master or a PhD, with complementary skills in finance and strategy.

By 2030, USTH plans to host 200 researchers working in applied fields, and ideally more in partnership with socio-economic actors, some of whom are already based in Hoa Lac (i.e., Vin Group, Vicostone, BKAV, VNPT Technology, VIETTEL, Biospring¹⁶⁴). University researchers currently have very little connection with companies, whether they are members of the consortium or not. The new campus project will be able to act as a catalyst in this regard, because with the urban externalities allowed by the future incubator and the proximity of the space research centre, links with industry will be easier and more direct. This new framework in Hoa Lac will also allow for the establishment of genuine open technical and technological platforms that will facilitate collaborative work with industry, particularly in infrastructure-intensive sectors such as aerospace. Since this concept of platforms has emerged repeatedly during the interviews¹⁶⁵, it seems important to define its scope and usefulness both in the lessons learned and in the innovation strategy. As a result, the innovation roadmap currently being defined by DRITT should refer to it, with some quantified indicators linked to their development, deployment, and exploitation, particularly in potential productions with industrial companies.

An improving collaboration with companies

This deeper collaboration with industrial companies is even more conceivable as they are part of the teaching programs. They benefit partially from industrial chairs linked to the CEFTE French system (i.e., Airbus, Dassault, Schneider Electric, etc.)¹⁶⁶. They offer workshops for help in writing CVs, or even marketing support for university departments (e.g., Thai Minh/ Pharmacy)¹⁶⁷. This strong presence underpinned by the 12 active MoU allows them to present the internships and professional opportunities available to students in their sector. On the first point, reflections on the integration of dual education among industrial companies are under way. Moreover, a new partnership dynamic at the research level has yet to be launched. First, by thinking now about the creation of a regime like the French CIFRE when the university reaches its autonomy after 2025-2026. It should be noted that alumni have high expectations regarding the deployment of such a tool¹⁶⁸. Second, through a market pull approach, industry should inform USTH of research projects on which it could position researchers/lecturers. The future Innovation Hub, and the possible integration into the QS Stars ranking by 2026¹⁶⁹, will be vectors of reputation for USTH, especially towards companies.

MAIN CONCLUSIONS ABOUT FIELD 2

Significant aspects:

- + Significant improvement of the number of SCIE-level publications**
- + Significant increase and diversification of the funding (both internal and external) devoted to research activities.**
- + The University detains equipment of high standard.**

¹⁶² Page 42 of the USTH Self-Evaluation Report

¹⁶³ Exchange of May 5, 2023, with alumni

¹⁶⁴ List provided by DRITT during the assessment mission.

¹⁶⁵ Exchanges of May 3, 2023.

¹⁶⁶ Exchange of 3 May 2023.

¹⁶⁷ Exchange of 4 May 2023 with external partners

¹⁶⁸ Exchange of 5 May 2023 with alumni

¹⁶⁹ Exchanges of 5 May 2023. and strong demand of alumni students.

- + **Simplification of the PhD process and possibility to write and defend the thesis in English, including an international scientist acting as reviewer.**
- + **Creation of the “Teaching Assistant” status for providing funding to PhD students.**
- + **The USTH devised income scheme is an asset to keep/attract skilled staff.**
- + **An interesting and ambitious innovation dynamic based on existing tools which provide interdisciplinary (i.e., Fablab), and future objects with high potential (i.e., Innovation Hub, technical platforms).**

Areas for improvement:

- **Areas for partnership with the main national research organisations should be explored and implemented.**
- **Innovation and technology transfer has still an emerging status and are often handled on an ad hoc basis by the lecturers-researchers.**
- **The strategy to apply with respect to the move to the new Campus must be carefully pondered with respect to the future localisation of the teaching activities and research labs, equipment, and platforms.**
- **An insufficiently structured and underutilized alumni network to detect diverse opportunities within the economic sector.**
- **DRITT’s offer to researchers is not clear enough.**
- **IP policy must be clarified.**

EC recommendations:

- DRITT’s role has been essential in the evolution of USTH towards the achievement of a status corresponding to a research-oriented university. Its recent expansion via the appointment of an additional staff was valuable to sustain its role and impact. DRITT has now to concentrate on supporting innovation and technology transfer activities. Moreover, it must define and communicate a clear service offer to researchers, to help them in their contacts with companies to capture industrial projects on the one hand, and to increase the value of their work to private third-party operators on the other hand.
- While during the visit, USTH has been quoted as “the most exemplar of the Franco-X campuses within MEAE” the expert committee is concerned by the announcement that one of the two positions that have been supported for years by the MEAE might be discontinued after the current academic year, probably the position currently attached to the DRITT direction. It looks like a serious blow for USTH and probably not well timed. Indeed, it will constitute a real challenge to USTH for: i) succeeding in implementing its strategy to strengthen innovation and technology transfer; ii) coping with the uncertainties caused and the efforts required by the future move to the new Campus in Hoa Lac.
- Fill the position of DRITT as soon as possible by relying either on internal promotion, or on the network of knowledge of the partners, both within the Consortium (i.e., industrialists, academics, etc.) and within VAST perimeter (i.e., VJU, VGU), or on other knowledge (i.e., social network communication, contacts via work relations, recommendations of alumni or researchers).
- Analyse the relevance and the possibility of pooling technology transfer resources at the VAST level, or at a minimum with other institutions in the perimeter, such as VGU or VJU.
- Define intermediate milestones for the SPD 2022-2030 innovation metrics, including 2026 or 2028 after the move to the new campus.
- Define quantitative and qualitative objectives for monitoring the definition, deployment, and operation of the future Innovation Hub, which will be a key component of the university’s future innovation and transfer strategy.
- Organize and further animate the alumni network to constitute a real vector for the promotion of science in society and to identify industrial projects with a collaborative dimension that could be presented to and invested by the university.
- Define as soon as possible an internal policy and an associated budget template for the protection of intellectual property comparable to those observed in Europe, to anticipate the possible modification of the legislative framework in the field of innovation and technology transfer actions.
- Mobilize immediately the networks of internal and external contacts, national and international, academic, and industrial partners to identify donors to feed the future foundation, having taken care to define clear communication documents presenting the project and the ambition of USTH, as well as the potential benefits of the university’s success for these partners.
- Capitalize on the Hoa Lac Campus project to motivate and create a professional perspective for staff occupying key functions in the university, especially in innovation.
- Begin to invest in the field of economic security, especially in anticipation of scaling up on the new campus, by appointing a referee for the university and by drafting a dedicated policy in the future operational roadmap of innovation.

- Analyse the possibility of adding courses in finance and management to bachelor's technical courses, as well as master's level.
- Precisely define the scope and usefulness of future technical/technological platforms that will be created on the future campus, and identify specific indicators to monitor their deployment, their operation, and the advantages they could have on lessons learned and partnerships with industry.

FIELD 3: EDUCATION, STUDENT AND CAMPUS LIFE POLICY

Standard 13: The institution has a quality teaching policy and teaching offer, consistent with its positioning and strategy.

Characterization of the training offer

The USTH is a young Franco-Vietnamese university that has built a coherent training offer in science and technology in the fields defined in the initial intergovernmental agreements IGA-1 and IGA-2¹⁷⁰. This offer is consistent with the needs of the local socio-economic world, the recruitment market and the training needs of researchers and teacher-researchers in the country. Bachelor's degree programs are oriented towards the job market (recruitment in Vietnam for the most part after the bachelor's degree) while master's degree programs (Franco-Vietnamese double degree) are oriented towards (1) research with the pursuit of doctoral studies (mainly in France) with a view to training future teacher-researchers for the USTH (2) training Vietnamese industry managers¹⁷¹. The doctoral school (created in 2014) offers 6 majors in accordance with the IGA-1¹⁷². The switch from a training offer only at the master level (at its creation) to **a coherent and of high-quality bachelor-master-doctorate continuum is a proof of a relevant training policy of the USTH and consistent with its strategy, its sustainability and the socio-economic needs of the country and the region**. USTH courses follow the Bologna process at the Bachelor (3 years), Master (2 years) and Doctorate (3 years) levels. All courses are taught in English, with some courses offered as double degrees with universities in the French Consortium, hence the need to learn French¹⁷³ and some classes in French for these courses.

The bachelor's program is structured in 8 Academic Departments¹⁷⁴. These departments comprise 16 bachelor's programs, which are structured in 3 years (B1-B2-B3). If the student does not have a sufficient level of English (IELTS lower than 5.0) at the time of recruitment, the course is in 4 years (B0-B1-B2-B3), with the additional year B0 for the reinforced learning of English. Some are offered in a double degree program with a French university and therefore take the B3 in France¹⁷⁵. The 6 master programs¹⁷⁶ are in line with the bachelors' programs. They are co-constructed and co-accredited with French universities of the Consortium and have a joint Franco-Vietnamese directory board, who works closely with the corresponding Academic Departments. Some courses are co-constructed with industrial partners, such as Aeronautic, according to the economic and industrial needs of the country. The PhD is of three years, according to the Bologna process and in accordance with the Vietnamese legal framework, including academic training and laboratory work. The procedures for opening new academic programs in bachelor's degree are defined¹⁷⁷. The possible closure of programs (such as the Energy master in 2019) is due to the lack of applicants.

Multidisciplinary is already present in the Academic Departments and the training courses, as for example for Water-Environment-Oceanography, Space (astrophysics, satellite technologies...). The challenges and objectives of the training courses evolution, clearly identified by the teaching teams, will increase this interdisciplinary. Bridges exist between departments and some students can change majors during their training (after approval by the rector board). Academic Departments are already working for the creation of such courses (for example, artificial intelligence and life sciences; ICT and environment; Water-environment-oceanography and biosensors and life sciences; ecological engineering, etc.). In their pedagogical practices, teams rely on the FabLab to propose a transversal approach to pedagogical projects. The new Campus project should allow for an increase in the surface area and equipment in the FabLab and thus increase this cross-disciplinary pedagogical format. The issues of sustainable development are integrated into some disciplinary training. Included in the USTH strategic planning document 2022-2030¹⁷⁸, the learning of these issues with a

¹⁷⁰ Intergovernmental agreement France Vietnam for establishing (2009) and for the development of USTH (2018)

¹⁷¹ Rapport Hcéres d'évaluation master, Consortium Université des Sciences et Technologies de Hanoi-USTH, Bilan de l'offre de formation master (publié le 27/05/2021)

¹⁷² See Standard 10

¹⁷³ French courses DD programs syllabus-2023, see Annex Field 3, document T33

¹⁷⁴ Information and Communication Technology / Life Sciences / Water-Environment-Oceanography / Aeronautics / Space and Applications / Energy / Fundamental and Applied Sciences / Advanced Materials Science and Nanotechnology

¹⁷⁵ Chemistry, Biotechnology-Drug Discovery and Information and Communication Technology

¹⁷⁶ See note 3 or 18 supra.

¹⁷⁷ Procedure of opening new Academic Program at Bachelor level-2021, see Annex Field 3, document T10.

¹⁷⁸ USTH Strategic Planification Document 2022-2030, action A2-1: "charitable activities and commitments to sustainable development »

macro and micro-economic, technical and scientific vision will deserve to be developed and systematized in the coming years.

Therefore, the expert committee considers that training at USTH is efficiently structured to propose a coherent and well-articulated training from bachelor to doctorate proposed in English, with multidisciplinary in all programs and pertinent partnerships in the academic and private fields.

Internationalization of courses

The international training offer **is inherent to the strategy of this Franco-Vietnamese university**. All master's programs are co-accredited, and three bachelor's programs are double-degree programs with French universities in the consortium. The opening up to internationalization according to European standards of these courses in English and allowing for integrated outbound mobility represents a real attractiveness for USTH among future students and their parents. The USTH is developing ingoing and outgoing mobility (about thirty in each direction in 2022), with the administrative support of the International Cooperation Office (ICO) acting today as a Department, and financial support according to the regulation in scholarships¹⁷⁹, based on merit criteria (26 outgoing scholarships in 2022). The foreign students are mainly French (86%) and of ten other nationalities. The objective indicated in the strategic planning document 2022-2030 is 5% of foreign students, with a focus on France, ASEAN, and Africa. Beyond the agreements linked to the Consortium, the MOU policy is currently important (110 in activity). Given the size of the university, **the expert committee considers that the strategy will have to lead to more selective choices to make these agreements effective.**

Training policy for and through research

The bachelor's and master's programs are oriented towards research¹⁸⁰ through their content, teaching formats and job opportunities. This link between training and research is made possible as all lecturers are researchers and as 85% of the teaching team has a doctorate. One third of the teaching is in the form of practical teaching and projects in connection with laboratories. A compulsory internship of 3-6 months in the Bachelor program (9 to 20 ECTS), 3 months in the Master 1 program (5 to 10 ECTS) and 6 months in the Master 2 program (30 ECTS) are included in the curriculum. The USTH 20 program¹⁸¹ selects student projects for funding that they can carry out in one of USTH laboratories. The hosting of students in laboratories is strongly encouraged, but the current space constraint (the USTH is hosted on a VAST campus) does not allow them to systematically have an office. The doctoral school created in 2014 currently hosts 38 doctoral students and offers scholarships and teaching assistant contracts¹⁸². These doctoral students are destined to join the USTH's team of teacher-researchers. Training in scientific and ethical integrity is proposed by the Department of Academic Affairs in the training courses¹⁸³ and students are guided during their internship projects in the laboratories on these practices¹⁸⁴. There is no plagiarism assessment tool, and the department of academic affairs and DRITT are in the process of selecting a software.

Documentation policy

The training policy includes access to scientific documentation, thanks to the sharing of resources¹⁸⁵. In addition, each Academic Department submits annual proposals to the rector board for the purchase of books and other resources. **In the new Campus, the expert committee assumes that this documentation policy should benefit from a new library, provided the recruitment of permanent staff and the on-line resources of VAST.**

Policy of professionalization of training

The creation of courses at the USTH is done in consultation with the socio-economic needs of the country in conjunction with the concerned companies¹⁸⁶. A « *Conseil de perfectionnement* » was created in 2021 (following an Hcéres evaluation in 2016) to formalize this policy of professionalization¹⁸⁷. Some courses (aeronautics, for example) are co-constructed with companies, and teaching activities are provided within some companies (software in aeronautics).

¹⁷⁹ Regulation on scholarships, see Annex Field 3, document T20.

¹⁸⁰ Intergovernmental agreement France Vietnam for establishing (2009) and for the development of USTH (2018)

¹⁸¹ Announcement USTH-20, 2021, see Annex Field 3, document T23

¹⁸² See also Standard 10

¹⁸³ Optional for bachelor, 2 ECTS / mandatory for master, 1, 5 ECTS / mandatory for doctorate 4 ECTS.

¹⁸⁴ See also Standard 11

¹⁸⁵ Library of 200 m² open from 9:00 am to 5:00 pm/ Internet access with a personal code.

¹⁸⁶ Intergovernmental agreement France Vietnam for establishing (2009) and for the development of USTH (2018), article 4.

¹⁸⁷ Guidelines on implementing CdP-2021, see Annex Field 3, document T29.

Besides the scientific courses in each domain, bachelor (optional) and master programs include modules of management science, organized by the General Education Department. The Department of Student Affairs organizes a yearly event (« internships and career fair ») and events related to entrepreneurship. Entrepreneurship courses (40h) are provided through a « Start-up module » in B3¹⁸⁸. Various training courses related to preparation for professionalization (writing CV, job interview...) and meetings with companies¹⁸⁹ are provided to the students. **The expert committee considers that this policy of professionalization of the students, already well developed at all levels, could gain from more interaction with the Alumni for further matching with the students' needs¹⁹⁰.**

Standard 14: The institution develops a set of institutional mechanisms to ensure the pedagogical quality of its teaching offer.

Pedagogical organization of training courses

The Undergraduate¹⁹¹ and master¹⁹² academic policies define the output standards and expected competencies. The pedagogical organization of the courses is managed by the General Education Department and the 8 Academic Departments. The General Education Department manages all the B0 courses and the common B1 courses¹⁹³. The Academic Departments coordinate the pedagogy of the B2 and B3 levels. The master's courses are organized and coordinated by the master's co-directors. A regulation of doctoral training¹⁹⁴ indicates the training program¹⁹⁵. The Department of Academic Affairs manages the organization of the departments. The Administration Office centralizes data from all academic departments for reporting to the supervisory bodies (VAST, MoET), manages the university's infrastructure, the various events, and is responsible for calls for tenders and works. The USTH bachelors were evaluated and accredited by the Hcéres in 2017 and those of Master in 2022. As stated in Hcéres evaluation of the masters, the competency-based approach deserves to be increased and more formalized; and innovative pedagogy should be supported in the coming months. Therefore, **all teaching programs are well defined and implemented**. USTH is aware that the **competency-based approach needs to be deepened for all its training programs**. USTH does not have a mechanism for the validation of prior learning given the low number of students but understands the need to implement a process if the demands increase.

Development and diversification of pedagogical practices

Pedagogical practices are generally of three types: lectures, practical courses, and tutorials. The training policy for and through research allows to innovate in terms of scientific projects. Some bachelor and master projects (whose topics are initiated by students) can be financially supported and developed in USTH laboratories, with the help of teacher-researchers. As stated previously, each training includes periods of internships. The course evaluations include an item on pedagogical practices. **USTH therefore offers different pedagogical practices in line with the training policy for and through research and will intend to improve innovative teaching methods**. It must be reminded the lack of sufficient room in the actual buildings of USTH, that does not help to improve the diversification of pedagogical practices, and the new Campus should allow to increase this policy. However, as already stated, the teaching staff of various Academic Departments rely on the FabLab to propose new practices, in a multidisciplinary approach. USTH has all the digital tools to provide online courses, which were widely and effectively deployed during the pandemic.

Opening and adaptation of the training offer to the international market

All courses are taught in English. The Foreign Language Department is in charge of English (B0, B1 and M1) and French (B2, B3 and M2) courses. For double bachelor's degrees with a French university, some B3 courses are in French. The department also offers evening courses (French, English, and Vietnamese). Graduate students should achieve a B2 certification in English. French is compulsory as a foreign language from B2 and should achieve a DELF A2 certification. Until now, the lecturers can follow courses in English from VAST. **Thus, USTH offers all the facilities for students to learn English and French and envisages to provide them also to lecturers**.

¹⁸⁸ Start-up syllabus -2022-2023, see Annex Field 3, document T27.

¹⁸⁹ List of soft skill training and career events 2022-2023, see Annex Field 3, document T28.

¹⁹⁰ See also Field 2

¹⁹¹ Undergraduate Academic Policies 2022 see Annex Field 3, document T12.

¹⁹² Master Academic Policies 2018 see Annex Field 3, document T13.

¹⁹³ Management, military training, philosophy, English, for a total of 48 ECTS.

¹⁹⁴ Regulation of doctoral training 2022 see Annex Field 3, document T25.

¹⁹⁵ 4 ECTS essays, 4 ECTS common courses on transverse skills, 12 ECTS on courses from the academic departments, 160 ECTS of PhD thesis.

The International Cooperation department organizes for outgoing students' seminars on foreign culture, mobility programs and administrative instruction. For the incoming students, this department proposes on-line questions and answers sessions, assists with administrative procedures, and organizes welcome and cultural events. **USTH is aware that it should improve the promotion of its pedagogical approaches, and support more strongly the incoming students**, and is already designing « mobility packs » for international students.

Opening and adapting the training offer to the continuing education public

Continuing education is offered in the form of evening courses for some masters (such as ICT) to adapt to the rules and needs of the country. Indeed, the Vietnamese job market favours recruitment at the bachelor's level, and some workers take up this type of continuing education after a few years, while continuing working. **USTH is currently working on « micro-credentials », based on existing modules, to propose sustainable and economically accessible continuing education formats.**

Standard 15: The institution analyses the attractiveness, performance and relevance of its educational offer and promotes student success from orientation to professional integration.

Attractiveness of training courses

Information on the training offer represents 53% of the communication department's budget and is structured into different actions according to the training level. A particular focus is put on Bachelor applicants, with a digital marketing and school tour approach (40 schools in Hanoi). The communication presents the training programs and the job opportunities¹⁹⁶. The institutional website has been improved in 2022. The admission team (4 staff) of the Department of Academic Affairs oversees this communication and is also in charge of accompanying students in the application process (three admission modes) with the Academic Departments. The analysis of attractiveness is carried out jointly by the admissions team and the marketing department¹⁹⁷ which allowed to make a projection of new enrolled students till 2030. Concerning the Bachelor level, the number of applicants has increased¹⁹⁸ allowing the number of students to double in 2 years¹⁹⁹. A difference in attractiveness is to be noted between bachelor's degree fields, with 57% of recruitments for the bachelor's degree in computer sciences²⁰⁰. The number of applications for the master's program (linked to the Vietnamese context) is much lower²⁰¹ with a selectivity rate of 75% in 2022. **Thus, the expert committee considers that the current information-communication and attractiveness measurement policies are adapted to the current number of students. But later, in case of students' swelling, it will be obviously different.**

Course performance

Analysis of course performance is carried out by the Department of Student Affairs, in cooperation with the Academic Departments. It enables the evolution of the success rate to be monitored²⁰². There is no study of the impact of possible support tools for students, as it currently seems to be carried out informally by all the teaching teams, given the small number of students. **This support is really appreciated by the students. However, this process and the impact study will have to be formalized to respond to the expected increasing flow of students.** Given the economic conditions of some students, studies can be arranged over a period of more than 3 years for the bachelor's degree and 2 years for the master's degree. Nevertheless, 90% of bachelors graduate in 3 or 4 years, and 90% of masters graduate in 2 years.

Relevance of training

The professional integration quality is performed by the Department of Student Affairs from 2016. Annual reports on working situation are performed 3-6 months after Bachelor graduation, which is consistent with the University youth. The surveys perform a response rate of 80% that provides a good picture of their initial career: whereas one third pursued their studies, most working graduates were in the private sector, with an unemployment rate of less than 10%. No information is provided for masters or PhDs. USTH projects to perform this survey after one,

¹⁹⁶ See Standard 4.

¹⁹⁷ Document presenting the applications since 2019, see Annex Field 3, document T05.

¹⁹⁸ +52% in 2020, +74% in 2021, +18% in 2022.

¹⁹⁹ A flow higher than 800 in 2022.

²⁰⁰ See Annex Field 3, document T35.

²⁰¹ Flow of 66 in 2022, 138 students as total.

²⁰² Data on graduation rate: statistics on the number of successfully trained students, see Annex Field 3, document T36

three and five years to monitor more carefully the careers of their alumni. USTH also receives feedbacks from the employers without a proper process. However, from the interview during the visit, the feedbacks from the employers/companies/partners were very positive, highlighting a very high qualification of the recruited alumni. **At the bachelor level, the relevance of training is well performed, and the quality of students seems excellent, notably for Vietnamese. The expert committee recommends that USTH should increase its internal processes with the swelling number of students, to gain in feedback from the alumni and employers.**

Standard 16: The institution monitors the development of its program offering and ensures that it is sustainable, by relying on a human resources policy consistent with its teaching policy and by implementing a continuous improvement approach.

Resource, support, and incentive policy

All USTH teachers²⁰³ are also researchers. Until now, the teaching staff is complemented by 152 French lecturers ensuring 3000 hours of teaching. In addition, PhDs can benefit from teaching assistantship contracts. The human resources policy for lecturers' recruitment is based on the evolution of student numbers expected by 2030 (5000). The objective is to recruit about hundred lecturers-researchers, 90% with a PhD²⁰⁴. For this, **USTH intends to rely on the 911 and 89 programs²⁰⁵ for PhD grants, but the number of scholarships awarded is currently very low, which may weaken the sustainability of this policy.**

Nevertheless, according to the lecturers themselves, **USTH recruitment policy for teachers-researchers is attractive** in the Vietnamese context in terms of salary (at least double that of other national universities), extra-incomes based on training and research results²⁰⁶ and excellent working conditions (equipment, integration in VAST teams) USTH is also aware of the need to provide more internal regulations to improve the recruitment policy, to increase the attractiveness and to keep efficiently formed teaching staffs.

Upon recruitment, new lecturers have 3-6 months to build their courses and research projects, followed by a reduction of course hours (50%) during the first year²⁰⁷. Lecturers can have trainings in pedagogy from national or international partner universities, providing innovative teaching skills. A training plan should be further developed to continuously improve the staff and formations quality, given the important increase in teaching staff that must have a PhD. Furthermore, USTH and VAST propose different granting systems for lecturers-researchers. For example, the "top tier" program allows young staff to apply for funding for the research groups emergence. In addition, calls for USTH-French Embassy mobility grants have been created in 2022-2023 for short-term stays for lecturers and PhDs²⁰⁸.

Mechanisms for steering and continuous improvement of the training offer

USTH assigned very recently a person in charge of quality assurance for the training. The quality assurance process in education is led by the Department of Academic Affairs, while each department has its own quality assurance service. Therefore, the quality assurance structuration is under development, and USTH is aware that **steering tools and processes for internal evaluation are necessary** and urgent, given that the number of students and trainers is planned to increase. **A global quality approach for the institution is being validated by the Council of University.** The Undergraduate academic policies²⁰⁹ guidelines present a « *Conseil de perfectionnement* » and action plans for quality assurance.

For now, the evaluation of training (evaluation of teaching by students) is organized by the Department of Academic Affairs, for each course. **A process of continuous improvement based on these evaluations is only emerging, but it deserves a systematized analysis and corresponding actions.**

Monitoring the cost of training courses in relation to their objectives and results

The cost of training is measured globally by type of expense and training (Bachelor, Master, and PhD)²¹⁰. The financial impact of the strategy to increase the number of students has been estimated until 2025. It is important

²⁰³ 91 full-time, with an average age under 40.

²⁰⁴ Intergovernmental agreement France Vietnam for establishing (2009) and for the development of USTH (2018)

²⁰⁵ Decision on 911 program (2010) and Regulation on selection lecturers project 89 (2022) see Annex Field 3, documents T39 and T40.

²⁰⁶ Working regime for lecturers (2020), Internal spending regulation (2022) and Additional income regulation (2021) see Annex Field 3, documents T41 to T43.

²⁰⁷ Regulation on selection lecturers project 89 (2022) see Annex Field 3, document T40.

²⁰⁸ See also Standard 10

²⁰⁹ Undergraduate Academic Policies 2022 see Annex Field 3, document T12.

²¹⁰ Scheme on training cost and cost by department (2021) see Annex Field 3, document T47.

to extend this estimate to the following years, to compare the objective of 5000 students with the average cost of training per student per year; this should be put into perspective with the expected increase in fees and the number of courses, to estimate the sustainability of USTH's overall training offer. In addition, a finer trajectory by level and field of training will have to be traced to consolidate the strategy of creation, perpetuation, and increase in intake capacity, etc., for certain training courses, in relation to the national and regional socio-economic-environmental issues

Standard 17: The institution supports the development of student and campus life, student engagement in governance, and promotes student well-being.

Student pride

USTH's small size enables a strong link between the staff and the students. Students are proud of being at USTH and the staff are well involved in the student well-being and success. This is particularly visible with the merit scholarship program²¹¹ to help it students, the number of student clubs and associations²¹², and the size of the Student Affairs office in regards of the youth and the size of the university.

Heavy constraints of premises

The main weakness of the university indeed is its small campus enclosed in VAST complex and the lack of infrastructures such as dormitories or suitable sport facilities. Furthermore, apart from scholarships, a clear student life plan is absent. Student life is mainly overseen by Youth Union²¹³ and the staff²¹⁴, without an official student-led commission to address policies and issues. Except for a plan to help student access sport infrastructures outside USTH, no clear partnerships exist with local student life stakeholders such as the City of Hanoi or cultural and sport operators.

But an important students' participation

Nonetheless, students actively participate in debates and discussions²¹⁵. The expert committee has been stroked during the interviews by the liveliness and sharpness of the student representatives. Senate regulations mandate the election of two student representatives. Training programs also have student representatives who are engaged with alumni in the "*Conseil de Perfectionnement*."²¹⁶ A yearly session facilitates staff-student dialogue for comprehensive feedback. USTH highly values student input, fostering the spirit of proximity between faculty and students. Notably, lecturers maintain an open office policy, welcoming everyday students for discussions and support.

An efficient help of the institution for students

The Student Affairs and International Cooperation Department assist international students in navigating the visa process²¹⁷. Given that English is the official language at USTH, welcoming guides and student life information are accessible to foreign students. As well, to help new students in adapting to university regulations and organization, a welcoming day is held annually. This event includes a course promoting gender equality and inclusion. More generally, the General Education department is in charge, namely in B1 level, to promote different courses highlighting different important aspects of life in society. Additionally, alumni are invited to share their experiences with students. Furthermore, the administration and student associations manage together social network groups and share some pages.

A financial support for student's associations

On the other hand, the university provides financial support for student association projects. Additionally, Youth Union plays a crucial role in setting priorities and overseeing these initiatives²¹⁸. They regularly convene to address student life matters and manage ongoing projects. However, due to the absence of dedicated student

²¹¹ Regulation on scholarships 2022-2023 see Annex Field 3, document T20.

²¹² Self-evaluation report – see Annex Field 3, document T02

²¹³ Official Youth association overseen by Communist Party

²¹⁴ Interview of student associations

²¹⁵ Interview on site of Services and panel of students

²¹⁶ Interview on site of panel of Alumni

²¹⁷ Interview on site of panel of students

²¹⁸ Interview on site of student associations

association offices and an overloaded three-year bachelor program, numerous students are unable to participate in extracurricular activities. Moreover, even if strongly supported, there is no official plan to assist students involved in these activities with customized study plans or the validation of soft skills competencies. Only Youth Union validate students' voluntary experiences, enabling them to display these achievements on their CVs.²¹⁹

Noting this inventory, the expert committee would suggest implementing a new body facilitating the staff/student relationship.

Both staff and student associations turn their attention to student well-being and a close relationship between students and the administration is a significant aspect of USTH spirit.

To summarize, the expert committee considers that, despite a lack of premises dedicated to student life and suited to it, despite also a Vietnamese law giving no place to student's representatives in university official bodies (apart Senate), student life is nevertheless optimally developed. It is obvious for the expert committee that staff and faculty as well are convinced of its importance. The question will be raised again in some years when USTH will be relocated in Hoa Lac. Staff and faculty will have to prove that, with new premises and much many students, they carry on sharing such a conviction.

MAIN CONCLUSIONS ABOUT FIELD 3

Significant aspects:

- + **A convincing training policy, well suited to strategic positioning and Vietnamese labour market.**
- + **A high-quality integrated bachelor-master-doctorate training policy, oriented towards research**
- + **High quality of teaching and teachers**
- + **Teaching in English with a structured bachelor-master-doctorate in a European format, facilitating international exchanges.**
- + **Efficient proximity between staff and students.**
- + **Active participation of students in debates and discussions.**
- + **Merit scholarship program to support students.**
- + **Variety of student clubs and associations with support from the administration and the Youth Union**

Areas for improvement:

- **USTH must choose more selectively its international partners²²⁰.**
- **Professionalization well in process, but to improve quickly.**
- **Competency-based approach**
- **Training in scientific and ethical integrity and ecological transition**
- **Continuous improvement of the training offer by deeper analysis of "Evaluation of the teaching by students" and subsequent action plans, in a more systematized way.**
- **Providing English courses to teaching staff**
- **Continuing and long-life training must be enlarged.**
- **Low number of scholarships or grants dedicated to students.**
- **Sport, cultural and volunteer activities are not included in the training program.**
- **Small campus and lack of infrastructures (dormitories, student clubs offices, etc).**
- **Limited partnerships with local student life stakeholders.**
- **USTH could implement an official student life Commission or Council.**

EC recommendations:

- The expert committee encourages USTH to improve its impact on the main world-wide challenges around ecological transition and sustainable development by providing dedicated training for the future leaders of the country: the trainings should be increased, not only in disciplinary domains, but also more general teachings with a scientific, technical, and macro-economic vision should be implemented. For this purpose, some courses on management, circular economy, etc should be provided from bachelor's level onwards.
- Evaluation by surveys in teaching must be analysed and an action plan drawn up as part of a continuous improvement process.

²¹⁹ Interview on site of student associations

²²⁰ See notably above « Standard 3 « Partnership at international level" p. 9 or Standard 13 p.28

- Rapidly develop quality assurance for training in accordance with the future global USTH quality assurance policy, by developing efficient tools and systematize internal processes.
- Anticipate rapidly the impact of the increase in the number of students and teachers, on all teaching processes, to maintain the excellence of training and teaching staff and of the very good relationship between students, teachers, and administrative staff.
- USTH should increase its links with their alumni, who are excellent ambassadors for improving the attractiveness of the university, demonstrating the high quality of the trainings, but also for helping for the continuous improvement of the training offer, the development of strong links with companies, the financing of research and training by companies, etc.
- Continuing education should be increased and formalized for their alumni but as well other employees, so as to anticipate the need for further training in the coming years, following the generalized professionalization of the bachelor's degree and the consequent need for increased skills in companies in the next years. It should also provide funding in the future for a sustainable university.
- The strategy in terms of international relations (for teaching and research) should be thought out in a measured way and beyond the strong relationship with France. To this end, relevant communication concerning the USTH's specificities and strengths in relation to its competitors in the region, would enable to target quality partners with common or complementary characteristics and objectives.
- The strategy of the formation of 100 PhDs for their further recruitment as USTH staff should be developed beyond the 911 and 89 programs, which do not seem to be sufficient for its recruitment target.
- As for all the missions of USTH, the probable move to the new campus needs to be discussed with teaching teams and students to anticipate any doubt, difficulty or stress.
- As the teaching is very research-oriented, with a strong link with the laboratories in the teaching formats, a special care should be paid to the locations of classrooms and laboratories in the new Campus project, in order to preserve this asset.
- EC suggests implementing a commission made with student representatives, associations, and student life stakeholders among staff. Such a commission can put forth a multi-year plan to enhance and improve student life policies. This plan can focus on some underdeveloped topics such as student health issues. It can also plan student's extracurricular activities and manage the future student's association's offices and dormitories when USTH will be relocated in Hoa Lac.

IV. CONCLUSION

At the end of the visit and its numerous meetings with the interlocutors selected by Hcéres and USTH, as well as after consulting the numerous transmitted documents, the expert committee considers that it has clearly identified the characteristics of the establishment, its strengths, and weaknesses but also the opportunities it seems able to seize as well as the risks it could incur.

In general, apart from a few more experienced personalities such as the two rectors, the USTH's staff, its governance and its operational teams are still young for the most part, but appear in a dynamic, ambitious, and most often enthusiastic state of mind, likely to put them in a position to meet the important challenges they have set themselves.

After a decade of difficulty, namely due to the health crisis, but also to a long-unestablished positioning, from the end of the 2010s, the establishment settled on an undeniable growth trend that it sees as the starting point of a significant expansion in terms of scale but also of influence not only in Vietnam but also beyond, especially in Asia. Admittedly, the USTH's size is still modest, but the challenges it has set itself are heavy to meet: a doubling of its size in terms of number of students and staff, a territorial extension on an extra-urban site tenfold increasing its surface area, an economic model based in the long term on its own resources alone due to the gradual reduction of Vietnamese government subsidies and the limits of French public funding, an ambition in research and innovation aimed at settling in the leading pack of Vietnamese universities. That's a lot. **But provided that the university follows its recommendations or at least the main ones, the expert committee emerges from its evaluation with the conviction that such a bet can be met and that the accreditation that Hcéres could grant to USTH would greatly contribute not only to establishing its credibility in the Vietnamese university landscape but also to motivate its teams even more.**

There is room, according to the EC, for this type of binational university through which university cultures enrich each other, especially if, on this double basis of rootedness, they know how to go beyond themselves and radiate on a wider scale.

Consequently, without ignoring the weaknesses of the institution or the risks it could face but highlighting its strengths and the opportunities presented to it, **the expert committee expresses a unanimous opinion that the Hcéres should grant USTH the requested accreditation.** This opinion will be detailed in the accreditation proposal that will be sent to Hcéres.

In terms of the institution's strengths and opportunities, the expert committee wishes to highlight:

- An original but solid institutional framework, in the form of two intergovernmental agreements.
- Financial support maintained from both governments, even if it tends to decrease.
- The youth, the dynamism, not to say the appetite, of a teaching and investigating team with everything to gain and the good use made of it by the governance team.
- Their competence proven by a level of graduation rarely achieved in a Vietnamese university.
- Their proximity and availability are highly appreciated by students.
- A proven practice of interdisciplinary and adaptation of the training offer.
- The appetite of most of the faculty for research and their already proven ability to publish with a ratio of 1.6 SCIE publications/year/researcher, already placing USTH, despite its youth and small size, in an excellent position in the national rankings.
- Strong support from the Consortium of French Institutions since the beginning.
- A scientific environment conducive to research within the VAST campus.
- An exhilarating prospect of settling in a new site offering much superior development spaces for all the missions of the institution, training, research, campus life and student life.
- Governance gradually adapting in its structures, notably through the recent reinforced directorate dedicated to research, innovation, and technology transfer (DRITT)
- A proven involvement of other staff thanks to an inspiring governance despite the constraints arising from the institutional and regulatory framework of Vietnamese public universities.
- Quality scientific equipment made possible thanks to a loan made by the Vietnamese government to the Asian Development Bank and whose institution knows how to ensure monitoring and provisions for renewal.
- A good knowledge of an economic, social, and political environment of the country, very demanding of qualifications in most areas of a training offer voluntarily adapted to this demand.
- Relations with a part of the economic world that are still modest but real and potentially transformable in an innovative way.
- A rather incentive salary policy for all staff, going beyond the usual norm.
- Registration fees for students remaining competitive.
- A proven animation of student life through many associations and workshops, despite the constraints of the current premises.

At the same time, **in terms of weaknesses and risks**, many of which are due to the youth of the institution and the Vietnamese context, the expert committee must note:

- The many uncertainties surrounding the new location of USTH on the Hoa Lac campus, in terms of deadlines, funding capacities, working, and living conditions for students and staff, particularly in terms of transport and housing, or in terms of appropriate scientific and economic neighbourhoods.
- A gradual financial disengagement of the two governments, the Vietnamese government by its desire to fully empower public institutions by working only through their own resources and calls for projects, the French government by the modesty of its subsidy and the non-consolidation of the few international technical jobs devoted to USTH.
- An administration of the institution still undersized and lacking the essential monitoring, steering and projection tools allowing the governance to control its trajectory.
- Insufficient management of the careers of teaching and administrative staff.
- A probable excess of informal functioning does not allow official bodies to fully play their role.
- A real role of students in the animation of the institution but little formalized in the instances.
- Accounting practices that can be improved (consolidation of accounts, depreciation).
- An embryonic quality approach.
- Internal and external communication to be further developed.
- A culture of university/business relations still embryonic in relation to which the USTH could provide real leadership.
- An external influence still too focused on France and too limited in the ASEAN subcontinent, which should be a privileged target.
- A lack of an official body dedicated to student life.

EC's MAIN RECOMMENDATIONS TO USTH:

On background of its favourable opinion that Hcéres grant its accreditation to USTH, it therefore appears necessary for the expert committee to propose to the establishment a certain number of recommendations enabling it to better face the important challenges it proposes to meet. Some of its recommendations should also apply to its supervisory authorities.

- As the last intergovernmental agreement dates to 2018 and may soon expire, it would be useful for USTH to ensure the possibility and modalities of its renewal.
The stability of governance being a factor of success, it seems important that USTH makes sure of such a stability, for a sufficient time, that corresponding to the final installation in Hoa Lac. Because a contract, renewable or not every two years, is a *contrario* a factor of potential imbalance, and provided this project is definitively confirmed within a reasonable time, such an assurance could come from the renewed principal rector's position. The biggest development challenge concerns the installation on the Hoa Lac site, without which the entire strategic development plan could collapse. In this regard, the expert committee recommends that the governance of USTH, as soon as it has confirmed the timing of the move, prepare its staff well for this deadline. This cannot yet be done for lack of certainty, but it must be done quickly, so that all staff clearly know what is envisaged for their service. The same is true for students. During the visit, it thus appeared to the expert committee that the future locations of the various activities had not been decided, which would not fail to quickly create confusion in people's minds.
- Still in terms of location, the expert committee questioned the relevance of maintaining the presence of USTH within the VAST campus, given the small size of its teams and the considerable surfaces that will therefore be at its disposal. It appears to the expert committee that USTH must manage with extreme caution the change of scale likely to occur in the next seven years, in terms of surface areas but also student numbers and staff, both of whom are expected to double.
- Due to the difficulties inherent in any significant change of scale, the expert committee recommends that USTH not consider too early further extensions, for example to the south of the country, before the consolidation of its establishment in Hoa Lac.
- This double swelling (students and staff), a priori beneficial for USTH, may however weaken the proximity and availability of teachers vis-à-vis students, even though this factor plays an important role in the attractiveness of the university. USTH must ensure that this link is maintained and that it recruits teachers-researchers of high scientific quality but who also know how to maintain this essential link.

- The consortium of French institutions has so far played a decisive role in the university's training and research activities. The expert committee noted with satisfaction that the vacancy of the post of its President would be resolved in the coming weeks after the interim ensured by the Principal Rector²²¹. However, one question remains, that of a possible enlargement of this consortium. This enlargement can be seen in at least two perfectly compatible ways: because of USTH's research ambitions, it would aim to solicit other French national research bodies beyond IRD and CNES alone, such as Inria given the institution's strong specialization in computer science and communications technologies, or CNRS and Inserm for life sciences. But it can also be seen as a geographical expansion by making in the consortium not only Vietnamese universities sharing certain strategic axes, but also other Asian institutions, especially in the ASEAN zone. The expert committee recommends that USTH explore these two avenues simultaneously, highlighting its now significant scientific productivity.

On the administrative level, the expert committee strongly recommends that USTH:

- Updates its organization and operational Charter, including Principal Rector functions, new governance bodies as SEC, main operating procedures namely elections procedures for Senate and SEC, mandatory number of meetings in a year.
- Equips itself as quickly as possible with the monitoring, steering and projection tools essential in the various areas of management, accounting and finance, human resources, logistics management, etc., to gradually have a complete decision-making information system (DIS). All services must be associated to this major project.
- Implements a quality approach.
- Implements a vocational training plan and a management of careers for all staff.
- Improves its accounting practices (namely consolidation of accounts and equipment depreciation).
- Implements an official body dedicated to staff/student relationship.
- Finally, the expert committee recommends that USTH set up workshops to improve the university's external and internal communication, which is decisive for student and faculty attractiveness, for instance highlighting students' success stories, setting up alumni networks, or by deepening what the USTH brand could be or become, notably regarding the Asian world.

²²¹ This question is now resolved with the decision taken on July 1, 2023, by the Consortium to elect Professor Jean-Paul DEROIN (Reims University) as new President.

V. COMMENTS OF THE INSTITUTION



Hanoi, September 18th, 2023

Ref.: JML/2023-02

To the attention of Pr Thierry Coulhon, President of Hcéres

Dear Mr Président,

On 28 August, USTH received the evaluation report from Hcéres following the expert committee's on-site visit from 3 to 5 May 2023, led by Professor Jean-Paul de Gaudemar.

The USTH Rectorate would first of all like to highlight the quality of the preparations for this visit by the Hcéres team, and the spirit in which the experts conducted their on-site analysis. The Vietnamese colleagues, who were not used to the exercise, experienced it as an open discussion and a real willingness from the expert's side to understand the context of a very young university that is still developing here in Vietnam.

The report we received presents a comprehensive view of the USTH; it emphasizes the institution's current dynamism and its development prospects as set out in its 2022-2030 strategic plan; it also highlights its weaknesses.

The recommendations put forward by the experts are clear and enable the USTH to strengthen its action plan with the support of this external analysis. The recommendations in the concluding chapter are seen as both strategic subjects and milestones that should lead to the maturity of the USTH project by 2030.

The experts also highlight the intergovernmental dimension, particularly the need to put in place a second extension to the intergovernmental agreement AIG3 to continue to support the institution.

The USTH accepts the report in its entirety, fully agrees with the experts' analysis, and considers that the recommendations made are relevant and likely to strengthen the university and its visibility in the structural transformation phase it will undergo over the next seven years.

Best regards,



Pr. Jean-Marc Lavest
Principal Rector of USTH

VI. LIST OF ACRONYMS

ADB :	Asian Development Bank
ASEAN :	Association of Southeast Asian Nations
BEAM :	BioPharma-Environmental Assessment & Monitoring
CEA :	French Alternative Energies and Atomic Energy Commission
CECS :	Chemistry for Energy Conversion & Storage
CEFTE :	Centres d'excellence de formation technique à l'étranger
CNES :	French National Centre for Space Studies
CNRS :	French National Centre for Scientific Research
CV :	Curriculum vitae
DAA :	Department of academic affairs
DRISA :	Drug Resistance In South-east Asia
DRITT :	Direction of Research, Innovation and Technology Transfer
DIS :	Decisional Information System
DS :	Doctoral school
EC :	Expert committee
ECTS :	European Credit Transfer and Accumulation System
ERG :	Emerging Research Groups
ERP :	Enterprise resource planning
ETI :	International Technical Expert
Hcéres :	High Council for the evaluation of research and higher education
HUST :	Hanoi University of Science and Technology
ICT :	Information and Communication Technology
IGA :	Intergovernmental agreement
IELTS :	International English Language Testing System
Inserm :	French National Institute of Health and Medical Research
IRD :	French National Research Institute for Sustainable Development
ISS :	Institutional shareholder services
IT :	Information Technology
LAAS :	Laboratory for Analysis and Architecture of Systems
LMD :	Licence Master Doctorat
LMI :	Laboratoire Mixte International
LOTUS :	Land-Ocean-atMosphere regional coUpled System study center
MOU :	Memorandum of understanding
MEAE :	French Ministry for Europe and Foreign Affairs
MESR :	French Ministry of Higher Education and Research
MNHN :	National Museum of Natural History
MOET :	Ministry of Education and training
MOST :	Ministry of Science and Technology
NAFOSTED :	National Foundation for Science and Technology Development
PDCA :	Plan Do Check Act
PhD :	Doctoral degree
PSL :	Paris Sciences & Lettres
PR :	Principal Rector
REMOSAT :	Remote's Ensing and MOdeling of Surface & ATmosphere
SEC :	Science Education Council
SEED :	Sustainable Energy and Environmental Development
SER :	Self-Evaluation Report
SPD :	Strategic Plan Document
TTRG :	Top Tier Research Group
VAST :	Vietnam Academy of Science and Technology
UC :	University Council
VGU :	Vietnamese German University
VJU :	Vietnamese Japan University
VND :	Vietnamese dong
VNU :	Vietnam National University
VR :	Vice-Rector



International evaluation and accreditation

ACCREDITATION DECISION

UNIVERSITY OF SCIENCE AND TECHNOLOGY OF
HANOI (USTH)

Hanoi

VIETNAM

November 2023

SCOPE OF THE ACCREDITATION GRANTED BY HCÉRES

HCÉRES has based its evaluation process on a set of objectives that higher education institutions must pursue to ensure recognised quality within France and Europe. These objectives are divided up into three fields among which are the accreditation criteria.

The Accreditation Commission issues an opinion about the accreditation of the institution after examining the file. The Hcéres President takes the decision based on the Commission's opinion and the final evaluation report of the institution. This accreditation decision, taken in plenary session, is the result of a collegial and reasoned process.

The decision issued by Hcéres regarding the accreditation of the institution corresponds to the awarding of a label to the evaluated entity.

This decision is independent of the accreditations carried out by the French State and therefore does not entail recognition in France of the institution or the diplomas delivered by it.

Decision No.-2023_30 on the accreditation of the University of Science and Technology of Hanoi (USTH) – Vietnam.

The President of the High Council for the Evaluation of Research and Higher Education,

Considering the Research Code, in particular Articles L. 114-3-1 to L. 114-3-6;

Considering the Decree No. 2021-1536 of November 29th 2021 on the organization and operation of the High Council for the Evaluation of Research and Higher Education;

Considering the Board's deliberation of September 29th 2022 on the accreditation criteria for foreign higher education institutions;

Considering the Decision No. 2023-9 of March 16th 2023 on the international accreditation procedure of the High Council for the Evaluation of Research and Higher Education;

Considering the agreements No. 2023/02/14 – Politique de recherche USTH, 2023/02/14 – Gouvernance et accréditation USTH and 2023/02/14 – Programmes de formation USTH signed on 16th of March 2023 - for the evaluation/accreditation of the University of Science and Technology of Hanoi (USTH);

Considering the opinion issued by the Accreditation Commission on 23rd October 2023,

Decides:

Article 1

Noting that the University of Science and Technology of Hanoi (USTH) meets the six accreditation criteria, voted by the Board of the High Council on September 29th 2022, as follows:

FIELD 1: STRATEGIC AND OPERATIONAL MANAGEMENT

ACCREDITATION CRITERION 1 - DEFINING THE INSTITUTION'S STRATEGY

USTH is still relatively young and only redefined its positioning at all levels at the end of the 2010s, but it did so in a determined and very clear way, corresponding to the socio-economical needs of the Vietnamese society.

In the training field, it has developed a bachelor's base, totally adapted to the needs of Vietnam, on which it is gradually building master's and doctoral programs.

From the beginning, in the research field, it has benefited from the significant support provided by the French Consortium of Institutions, which now allows it to feature a scientific status among the best in Vietnam.

Thus, it is noted and underlined that, despite an important shift in its strategy, USTH has been able to keep a very good scientific level in terms of activities as well in terms of publications.

Its national and international partnership strategy, apart from the strong link with the French consortium, has laid the foundations for specific and reasonable growth

It now has all the assets to consolidate and advance its position at all levels.

ACCREDITATION CRITERION 2 - GOVERNANCE AND ARRANGEMENTS FOR IMPLEMENTING THE STRATEGY

Several weaknesses had been identified, not so much in the governance itself, which is considered dynamic and enterprising, but in the implementation of certain operational aspects of the strategy.

In particular, the institutional functioning should be further formalized, the human resources management seems still insufficient for career management, and appropriate management, monitoring and projection tools integrated into a decision-making system are also lacking.

In addition, the planned move to the extra-urban site of Hoa Lac and the scarcity of public funds could temporarily destabilize the establishment. USTH has been able to convince of its willingness and determination to move forward quickly to compensate for its weaknesses.

FIELD 2: POLICY ON RESEARCH, INNOVATION AND THE INCLUSION OF SCIENCE IN SOCIETY

ACCREDITATION CRITERION 3 - RESEARCH POLICY

Already, and despite its infancy, research appears to be an important asset of a university conceived from its origins as a high-level institution.

This trend, significantly impacted by the inclusion of USTH within VAST (Vietnam Academy of Science and Technology) in 2016, was not weakened during its strategic reorientation and USTH thus appears as one of the most dynamic Vietnamese universities in term of research. However, take into account developments in the evaluation of research which is not only based on quantitative criteria, but on impact. Have a more precise look at the scientific and ethical integrity of research.

It still has several steps to take towards innovation and technological transfer, but the determination of the establishment, via the role played by the DRITT (Department of Research, Innovation and Technological Transfer), makes it possible to envisage that it could be a model for the development of the university/business relationship, still rare in Vietnam, but whose foundations are already well laid.

ACCREDITATION CRITERION 4 - INNOVATION POLICY AND SOCIETAL IMPACT

USTH is still imperfectly in a dynamic of innovation and significant societal impact.

The Vietnamese context largely explains this situation insofar as the culture of the university/company relationship is still poorly developed, as more generally what is now called the social responsibility of the university. The notion is still little developed in Vietnam but through its international relations the USTH could be one vector of its rapid penetration.

USTH could play a major role boosting the development in Vietnam of a new relationship between universities and enterprises, dedicated to innovation and structural shift in economy and social relations.

Finally, the key role of DRITT, the prospect of moving to the new Hoa Lac site, the future proximity to some research centers and companies, as well as the establishment of the Innovation Hub could help USTH to reach its strategic objectives on innovation. French authorities could maintain their support to DRITT director's post (ETI).

FIELD 3: EDUCATION, STUDENT AND CAMPUS LIFE POLICY

ACCREDITATION CRITERION 5 - TEACHING POLICY

The strategic reorientation of the institution towards a more traditional training offer structure based on a solid foundation of bachelor's degrees to develop further studies towards master's and doctoral degrees appeared to be more fruitful as it fully corresponds to Vietnamese demand on the labor market.

The professional integration of graduates is therefore of excellent quality at bachelor level. The low rate of transition to the master's degree is explained by the current level of the country's development and the lower demand corresponding to this level.

But this situation can quickly change and USTH seems able to adapt to such future trends, provided it remains attentive to the country's economic transformations.

In addition, students say they are very satisfied with the proximity and availability of the faculty who provide them with the expected support.

ACCREDITATION CRITERION 6 - STUDENT AND CAMPUS LIFE

Despite the important space constraints that USTH in its current premises are experiencing, campus life does not seem to be altered because the institution nevertheless benefits from its location within the larger VAST campus and the activities offered there to students.

However, the transfer to the Hoa Lac site when it will be carried out in a few years, could modify, and considerably enrich campus life by offering it considerable availability of space to accommodate many activities.

This project goes hand in hand with the significant increase in the number of students and staff (doubling) by 2030.

In the context of Vietnam, student associations are very active and well supervised. They participate strongly in the animation of the university, even if the participation of students in governance bodies is provided in Vietnamese law only for the Academic Senate. However, the accreditation commission notes that there is a lack of information concerning the terms of election to the Central Council for the students.

Article 2

The University of Science and Technology of Hanoi (USTH) is accredited for a period of 5 years.

Article 3

The decision is accompanied by the following recommendations and comments:

- Strengthen management tools, in preparation for the move to the Hoa Lac site.

Article 4

The Director of the Europe and International Department is responsible for the execution of this decision, which will be published on the Hcéres website.

Paris, November 7th 2023.



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The acting President



Stéphane Le Bouler



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