Contribution to the Scientific part of the COMP

SNCS FSU/SNTRS CGT Elected representative at the Scientific Board

October 11, 2024

Context

After the October 2, 2024 meeting with the scientific board, it was concluded that 2h were not enough to finish discussing the scientific part of the 2024 COMP (especially given the fact that the first hour was used to explain the COMP and the process). We were asked to send by email the additional points that we wanted to discuss (instead of having another meeting).

However emails would not be public as part of the scientific contributions made by the scientific board, hence we have chosen to write a document which we hope can be appended to the minutes of the meeting. Those are the contribution by the elected representative of the SNCS/CGT list that we have not been able to discuss due to lack of time during the scientific board.

We hope that based on these, we can have another meeting to discuss the updated version of the scientific part of the COMP.

General comments

In general, we are surprised at the small space that the science is taking in our contract with the state. It seems like a secondary element in this contract. Moreover, in this reduced volume, the only scientific topics that are highlighted are those covered by the program agency. We are worried about what this means for other topics.

We have noted that Inria is not meant to be "a program agency that does research", but "both a research institute and a program agency". To clarify this, it is important to really separate those two parts in the scientific presentation, particularly if we discuss means (i.e. budget), to guarantee that the research institute budget does not disappear into the program agency budget.

Blind Spots of the scientific document

Support for public policies It is unfortunate that support for public policies does not appear in the scientific part of the COP as we will show in the following.

Amongst Inria's missions[1] we can find:

> *"to develop the capacity for expertise and support for public policies conducted to respond in particular to societal, educational and industrial challenges in the digital field".*

Scientific expertise is defined as follows in a document produced by the CNRS Scientific Board and voted by the Board of Directors[2]:

> *"Institutional scientific expertise at the CNRS is collective. It encompasses all activities to answer a question by critically assessing available scientific knowledge. It aims to share knowledge and provide an independent scientific perspective in support of public decision-making and public debate."*

During the previous COP, several elements showed us that Inria management was misinterpreting this mission.

To give some concrete examples:

- During the debate on digital tracking tools used for tackling the Covid crisis, a team of specialist colleagues produced a risk analysis document[3]. During the HCERES evaluation, this scientific document was presented by the Inria Management to the evaluation committee under the heading "expression of opposition".

- During the 2020 pension reform, a colleague, working with an economist specialized on pension reforms, produced a simulation and modeling tool to model the effects of the reform[4]. The first public response by the *Direction Générale* of Inria was

  > *"we should not, as an institute, express position with regards to decision or communication from the State."*

  This statement clearly showed that the Direction Générale was not making a difference between a scientific critical evaluation of public policies (our role), and a political position. Then later this colleague was refused bonuses, with (1) a message from his center director telling him that this work was not part of his research missions; (2) which was then confirmed by a letter from the head of Human Resources, stating that the person in charge of the decision (i.e. Bruno Sportisse) felt that this work did not fit in with the strategy of the COP institute, and therefore with the public policy support section.

[1] https://www.inria.fr/sites/default/files/2024-02/Decret-N2023-1321_27-12-2023_Articles-R326-1-R326-18_organisation-fonctionnement-Inria.pdf

[2] https://www.cnrs.fr/sites/default/files/page/2022-06/Chartedel'expertisescientifiqueinstitutionnelleauCNRS_17juin2022.pdf

[3] https://risques-tracage.fr/en/index.html

[4] https://github.com/brunoscherrer/salaires_pensions

In the new COP, it is essential that this mission of expertise and support for public policy be given its true definition, synonymous with freedom of research. If society and legislators are to have confidence in science, expertise must be able to be critical and analyze both the positive and negative aspects of social issues.

This subject should therefore be a fundamental part of the COP, with the short-term aim of producing a charter for Inria's expertise. This could be achieved through joint work between the deontologist, the scientific board and the evaluation commission.

Ethics Ethics around computing is a very wide and important topic. In the current state of the text, eventhough there is a strong highlights of collaboration with HSS (Human and Social Sciences), there is no word on ethics.

Consideration for the final document:

- Including an ethic discussion is an important part of the evaluation of project teams (this needs to be prepared with experts);
- Try to generate collaboration with HSS on the topics of ethics in computing
- Reinforcing the ethics committee to complement the current job of COERLE.

Environmental aspects In the current ecological crisis context, the text that was provided to us is very minimal on this topic, with targets that are much later than other targets of the document. There is a discussion about low tech with a roadmap planned for the end of 2026 (all other scientific roadmaps are for 2025). In addition, given recent statement we may need more details about what is meant: will this include sobriety, discussion with HSS about the impact of digital sciences? Or on the contrary, will this roadmap focus on "smart tech"? A recent interview[5] given by Jean-Frédéric Gerbeau in his role as head of science at Inria seems to imply that low tech is not really what Inria and the program agency are thinking about, but that the work may focus more on "smart tech":

> *"Construisons un numérique à l'empreinte environnementale maîtrisée. Sans parler de low tech, il s'agit de développer une technologie plus maligne, une smart tech"*

These various positions need to be clarified explicitly in this document. The importance and urgency of the climate crisis needs to be strengthen. How can digital sciences help IPCC? There needs to be a discussion about sobriety: how can we do what we used to do with much less, and being aware of the rebound effect. There could be a discussion on software engineering and Wirth Law: how can we redevelop at Inria the science of getting more efficient software?

[5] https://www.usinenouvelle.com/article/l-intelligence-artificielle-transforme-la-maniere-de-faire-de-la-scien
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AI The current text mostly discusses the benefits of AI and its breakthrough (very "industry-compatible"), but forgets the discussion where we could have a strong impact as a public institute on the issues with reproducibility, ethical issues, societal risks. This needs to be reinforced. This can particularly be strengthen into the discussion section with HSS.

Other comments

Creating teams in relation to the Program Agency Our understanding is that Inria management is hoping to create project teams whose project follows the program agency's program.

Since it seems that it is possible to put targets in the creation of teams, see for instance:

> *Indicator: Number of "new" project teams created, in the context of support for scientific risk-taking (using the methodology used in the RAE; target: 50% in 2028).*

We believe that it would be important to help understand the direction taken by the institute to give targets in terms of teams that are **not** based on the program agency's research program, to guarantee the independence of Inria, the research center, from the program agency (e.g. X% of Inria's team will be on topic unrelated to the program's agency missions).

Diversification recruitment method for ISFP There is a concern that this method is a way to bypass the evaluation by the Inria evaluation committee. More guarantees need to be provided about the process.

In addition, if we were to change the recruitment process the Direction Générale would have to justify in an honest way what they expect, what they are doing to be sure that it works, and guarantees that they would stop the process if it doesn't match the expectations to not reproduce the errors done in the previous COP.

Indees in the previous COP, with the introduction of ISFP, motivated by attracting new early career researcher that wouldn't apply to Inria, observations were that:

- Almost all early career researchers apply to both CRCN and ISFP positions
- Most of them, when given a choice, choose CRCN position (70% in 2024)
- We are seeing an increasing number of mid-career researcher, already in the French system, applying to both ISFP and DR2 positions, failing at DR2 and entering through ISFP positions (only to apply to the easiest[6] internal ISFP-specific DR2 exam the year after?)

[6] In the sense that the number of applications per positions is much lower.

Reviewing the scientific comment It may be useful to have domain-specific experts review some of the claims made in the document. As an example, we asked a colleague in robotics to review the claim

> *"Profound transformations brought about by AI in robotics"*

His response is as follows (translated by us):

> *There is no doubt that AI has made a huge contribution to vision in the broadest sense, a modality often used in robotics. Its contribution as a user interface is much less clear-cut, and has yet to be evaluated... But its contribution to other areas of robotics is even less clear-cut. At the moment, at its best, and provided we work seriously on it (far from "I've got a set of data, I train it and it's done"), AI is just another tool that needs to be examined, and which sometimes performs better... but not always, and not by a long way.*
> *What's more, I've analyzed the themes of ICRA, the major robotics conference of the year, over a number of years, we can clearly see that while AI is represented (15%, no doubt influenced by a windfall policy, and constant over the last 3 years), there are many perennial themes not influenced by AI or at the margins. It would therefore be a gross strategic error to confuse AI and robotics, and to believe that AI alone will revolutionize robotics...*