



**YOUNG ACADEMY
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Young Academy Finland

Assistance for Ukrainian researchers: needs, mechanisms, recommendations

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Introduction

Since the full-scale military attack of Russia against Ukraine on 24 February 2022, millions of Ukrainians have been facing the consequences – losing homes, stability, and their loved ones. The international community expressed immediate support and provided various assistance.

By the end of 2022, 7,896,825 people had fled the country, and almost 5 million received temporary protection status in the European Union member states, including Finland¹.

Finland has accepted over 45 thousand refugees from Ukraine. Among them, there were students, scholars, academics, and researchers. Finland's government and institutions provided immediate assistance to them – the universities invited scholars to continue their research within new walls and provided them with work, foundations assigned grants, etc. Grass-roots initiatives, such as the international #ScienceForUkraine, have also been operating in Finland. Naturally, most of the assistance was ad hoc and not foolproof. Over time, more issues came into the picture, and it became apparent that there was more to learn about the actual needs of Ukrainian researchers both in Ukraine and abroad and ways to make assistance more efficient for both sides.

While those who fled Ukraine faced specific issues in the countries that harbored them, most researchers stayed in Ukraine for multiple reasons. As winter approached, they faced increasingly grave living and working conditions. The international scientific community started looking into ways to assist those scholars who are not leaving Ukraine.

The purpose of this research, conducted by Young Academy Finland, is to analyze the current needs (as of winter 2022/2023) of Ukrainian researchers both in Finland and Ukraine, look into the supporting initiatives and institutions in Finland, and draw conclusions

¹ <https://data.unhcr.org/en/situations/ukraine>

– what could be done better, added, or eliminated to make the assistance to Ukrainian scholars more efficient for both sides. The research was conducted based on the available surveys, polls, data and its analysis, and individual interviews held with the representatives of the Ukrainian research community, coordinators and conductors of previous surveys, and the stakeholders on the Finnish side (conversations were held with the following, among others):

- Dr. Yuriy Khalavka, Yuriy Fedkovych Chernivtsi National University, coordinator of the UAScience.reload project;
- Dr. Yevheniia Polishchuk, Vice-head for International Relations at the Young Scientists Council at the Ministry of Education and Science in Ukraine, professor at Kyiv National Economic University named after Vadym Hetman;
- Dr. Olena Maslyukivska, a visiting researcher at the University of Vaasa and associate professor at the National University of Kyiv-Mohyla Academy, who held a survey among her academic networks in May/June;
- Maija Airas, Head of International Higher Education Cooperation at EDUFI;
- Outi Tomperi, Senior program specialist of the International Higher Education Cooperation, Finnish National Agency for Education;
- Kalle Korhonen, Director of Funding at Kone Foundation;
- Markus Laitinen, Head of Development, International Affairs, University of Helsinki;
- Annina Lattu and Katri Mäkinen-Rostedt, Finnish coordinators of the #ScienceForUkraine initiative.

The report consists of three parts:

- the first provides an insight into the needs of Ukrainian researchers – both in Ukraine and in Finland;
- the second provides an overview of Finland's major supporting institutions and programs;
- the third gives recommendations for further assistance.

Although the war is still ongoing and the situation is constantly changing, the general needs of Ukrainian researchers have been identified and will likely stay the same. Besides, as the scientific community of Ukraine sees it, the most important solutions must be long-term, as science and research in Ukraine will need support with a long-term perspective, even after the hostilities are over.

1. Ukrainian researchers' needs and capacities

*"Ukrainian researchers need not only help, but hope."*²

General picture

According to the Ministry of Education and Science of Ukraine, there are approximately 60,000 researchers who represent Ukrainian science today, around 35,000 support staff working, over 400 organizations, and 200 higher education institutions. Among them, the majority constitute young researchers aged 30 to 39³. During the full-scale war, 2,783 educational institutions have suffered bombing and shelling, and 337 have been destroyed completely (as of December 2022).⁴ As of December 2022, the amount of property and premises of research and higher education institutions is as follows: not damaged—228, partly damaged—91, totally damaged—4, data missing—11 (located at temporary occupied areas).⁵

After the escalation of the war on 24 February 2022, education institutions were forced to undergo significant changes in their work: they continued functioning, albeit remotely; those located in temporarily occupied territories had to move to the regions controlled by the Ukrainian government⁶ (although some members of staff chose to stay behind; some of them even became collaborators in the occupied areas as the occupation government tried to resume the education process under its management⁷); the researchers and support staff working in these institutions have suffered life-changing (and work-disrupting) events.

The effects of the war differ for everyone. Some researchers were killed, some went missing, and most researchers in Ukraine found themselves internally or internationally displaced (as refugees/under temporary protection).⁸ Surveys and polls show a dynamic where most researchers remain in Ukraine, but around 40% find themselves internally displaced. Only

² Dr. Yuriy Khalavka, Yuriy Fedkovych Chernivtsi National University, coordinator of the UAScience.reload project during the interview for the report

³ <https://mon.gov.ua/storage/app/media/nauka/informatsiyno-analitychni/2020/08/13/nadnaukaza2019-stisnuto.pdf>

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<https://reliefweb.int/report/ukraine/overview-current-state-education-and-science-ukraine-terms-russian-aggression-december-2022>

⁵ https://drive.google.com/file/d/1j1FbLnEHN7Qq_meKvNEtFinmcKLjca13/view

⁶ <https://tsn.ua/ukrayina/z-okupovanih-donechchni-luganschini-hersonskoyi-ta-zaporizkoyi-oblastey-viyihali-usi-vischi-navchalni-zakladi-2135938.html>

⁷ <https://cedos.org.ua/en/researches/education-in-the-occupied-territories-of-ukraine-february-24-april-24-2022/>

⁸ <https://sciencebusiness.net/news/ukrainian-researchers-navigate-times-war>

approximately 12% fled abroad⁹ (however, the numbers are still changing as, in the past few months, some researchers have left the country due to the worsening living and working conditions, whereas others have returned, thus, making the number of those who left drop from 15%). Overall, around three quarters of Ukrainian researchers have struggled to carry on with their work.

Given that, while the numbers may change over time, the most common needs remain the same.

Ukrainian researchers in Finland

Finnish Immigration Service states that by February 2023, there were a total of **50,689 applications for temporary protection** lodged.¹⁰

In July 2022, Finland's Ministry of the Interior surveyed Ukrainians who had recently arrived in Finland after fleeing the war.¹¹ In September, it was reported that the Ukrainians who participated in the survey were highly educated, as every second respondent (48%) had a university education to a Master's degree level.

By December 2022, the situation in Ukraine had become more grievous (electricity outages, water and heat supply problems, frequent massive missile attacks launched by Russia against infrastructure and civilians), and Ukrainian authorities have been calling upon the citizens to spend the winter abroad if they can. The number of Ukrainians seeking temporary protection within the EU, including in Finland, kept rising. It is highly likely that the number of Ukrainians in Finland will rise further as the war continues.

However, it should be noted that Finland appears not to be the country of first choice for Ukrainians fleeing the war (naturally, most of the refugees were accepted by the neighboring countries, especially Poland). The same applies to scientists from Ukraine: through the

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<https://sciencebusiness.net/news/International-news/new-normal-ukraines-research-and-innovation-community-slowly-standing-its-feet>

¹⁰ <https://migri.fi/en/statistics-on-temporary-protection>

¹¹ Arseniy Svyrenenko, Anastasiya Koptsyukh, The situation of Ukrainians in Finland who fled the war: [Survey results](#).

#ScienceForUkraine initiative, we know that the scientists who fled Ukraine have primarily settled in Germany and Poland, where they already had networks before the war.¹²

Existing networks were highlighted as one of the key factors when researchers chose places of refuge: those with pre-existing ties to Europe are most likely to be selected for aid and adapt to the new country more easily.¹³ Other than **existing networks**, Ukrainian researchers abroad specified **geographical location** and **language skills** as important factors when choosing a country to settle in.¹⁴

The latter—**language skills**—appears to be one of the most common problems Ukrainian researchers face abroad, including in Finland. #ScienceforUkraine in Finland states: ‘as a researcher coming from conflict areas does not necessarily speak any other languages of the European region, it may become difficult for them to be selected for research asylum’¹⁵. The same may apply to any qualified job. Dr. Olena Maslyukivska, a visiting researcher at the University of Vaasa and associate professor at the National University of Kyiv-Mohyla Academy, who held a survey among her academic networks back in May/July, states that a major barrier for Ukrainian researchers to finding proper support and continuing their work in Finland is the language—a **lack of proper English and Finnish**.

Thus, **language training** may be needed to assure that the researchers who come to Finland meet the basic requirement for working abroad. In one of the surveys conducted among Ukrainian researchers who had fled Ukraine, 56% of respondents said that they have a full need, and 10% that they feel a partial need for language courses in the host country. In particular, 67% of them need courses in the national languages of their host countries, and 33% need English language courses.¹⁶ This is also confirmed by Dr. Oleksandra Ivashchenko, one of the coordinators of the #ScienceForUkraine platform: language training is one of the key needs of displaced researchers¹⁷. Tom Odhiambo from UNHCR acknowledges that more investment is needed in key enablers of recovery, among which is language training (the others are psychological support and recognition of new/existing credentials)¹⁸.

¹² Michael E. Rose and Sanita Reinsone et al., #ScienceForUkraine: an Initiative to Support the Ukrainian Academic Community. “3 months since Russia’s invasion in Ukraine”, February 26 – May 31, 2022

¹³ <https://www.tieteessatapahtuu.fi/numerot/5-2022/scienceforukraine-suomi-tiede-ja-sota-aika-reflektoida>

¹⁴ Michael E. Rose and Sanita Reinsone et al., #ScienceForUkraine: an Initiative to Support the Ukrainian Academic Community. “3 months since Russia’s invasion in Ukraine”, February 26 – May 31, 2022

¹⁵ <https://www.tieteessatapahtuu.fi/numerot/5-2022/scienceforukraine-suomi-tiede-ja-sota-aika-reflektoida>

¹⁶ <https://www.eaie.org/blog/ukrainian-students-abroad-need.html>

¹⁷ Conference on the Ukraine Crisis. Response from the European Higher Education and Research Sector. [Conference report](#)

¹⁸ Conference on the Ukraine Crisis. Response from the European Higher Education and Research Sector. [Conference report](#)

However, language is not the only barrier for Ukrainian researchers to getting **relevant positions** in Finland and continuing their work here. It appears that there is a constant imbalance in the research positions opened for Ukrainian researchers in Finland and the Ukrainians who would be eligible to fill them, given their credentials and previous discipline. #ScienceForUkraine in Finland has stated that the amount of aid offered by Finnish universities and research organizations to those fleeing the war in Ukraine has yet to match the number of aid applicants. By September 2022, Finnish universities and research organizations had listed 60 support offers on the #ScienceForUkraine website, of which 45 were aimed at researchers¹⁹. Only some of these positions got filled. According to Dr. Olena Maslyukivska, one of the reasons is that the scientific fields where assistance was offered did not correspond with the actual areas of study of Ukrainian researchers coming to Finland.

As of November 2022, there were 47 existing positions posted on #ScienceForUkraine Finland, including 24 paid positions for researchers²⁰. The division among them was as follows:

- 16 positions—natural sciences (biology, biomedicine, genome studies, etc.),
- 9 positions—medical and health sciences,
- 4 positions—engineering and technology,
- 4 positions—social sciences,
- 2 positions—humanities and arts.

It should be noted here that **the majority of Ukrainians currently coming to Finland are women**, as men under 60 are prohibited from leaving the country under martial law with limited exceptions. Between 2011 and 2020, 4,703 women received a degree of Doctor of Sciences in Ukraine, and 33,422 women defended their PhD theses. Among those earning PhD degrees, women constitute the majority. At the beginning of 2011, their share was 53–57%. In 2016, it reached 59.8%; in 2020 it was 54.2%. At the same time, there is a stable tendency of the **predominance of PhD women in the humanities, as the press office of the Ministry of Education and Science of Ukraine stated in 2021**²¹.

¹⁹ <https://www.tieteessatapahtuu.fi/numerot/5-2022/scienceforukraine-suomi-tiede-ja-sota-aika-reflektoida>

²⁰ <https://scienceforukraine.eu/listings>

²¹ <https://www.ukrinform.ua/rubric-society/3188986-v-ukraini-za-ostanni-desat-rokiv-doktorski-disertacii-zahistili-ponad-47-tisac-zinok.html>

Thus, even qualified researchers with the necessary language skills needed help finding appropriate positions. As a result of these two factors (**lack of language skills and lack of open positions relevant to the researchers' fields of study**), there are cases where Ukrainian postdocs who found themselves in Finland after fleeing Ukraine have settled for underqualified jobs.

Another need many Ukrainian researchers have abroad is **certainty and psychological well-being**. Researchers who have been granted asylum or a research place often need clarification about what will happen later, since due to fleeing, many researchers have lost their position or have to rebuild their toolkit, perhaps their entire career²². Indeed, during private interviews, Ukrainian researchers harbored by Finnish institutions shared that they 'immediately felt better and more reassured' when they had **a future of at least a year or two secured ahead of them**. The feeling of uncertainty and stress has been proven to have negative impacts on the cognitive functions of humans²³, so gaining some confidence and relieving some of the stress of having to flee one's homeland because of war and having the future one planned now completely fogged, not only helps researchers find their footing again but also contributes to the results of their work. Another problem may also arise – finding security for a year or two is good, but what inevitably follows is insecurity concerning the time beyond that (especially in cases where a researcher intends to continue their work abroad). As Kalle Korhonen, Director of Funding at Kone Foundation, emphasizes, this is a structural issue within the research funding system in Finland. Researchers from Ukraine may find more certainty by entering into contracts and establishing relations with Finnish universities.

The newest survey²⁴ on the needs of Ukrainian researchers abroad, published in December 2022, shows that although at the beginning of the war, scholarships seemed to be the **preferred and quickest form of support**, the majority of respondents indicate their preference for research grants (59.4%) and internships (51.3%), with more than one third opting for permanent (38.3%) or temporary (37.7%) positions, and only slightly more than a quarter (28.0%) favoring scholarships.

The survey shows that most scholars would like to participate in the existing programs and many would like to receive individual mini-grants to **cover both staff costs and costs of**

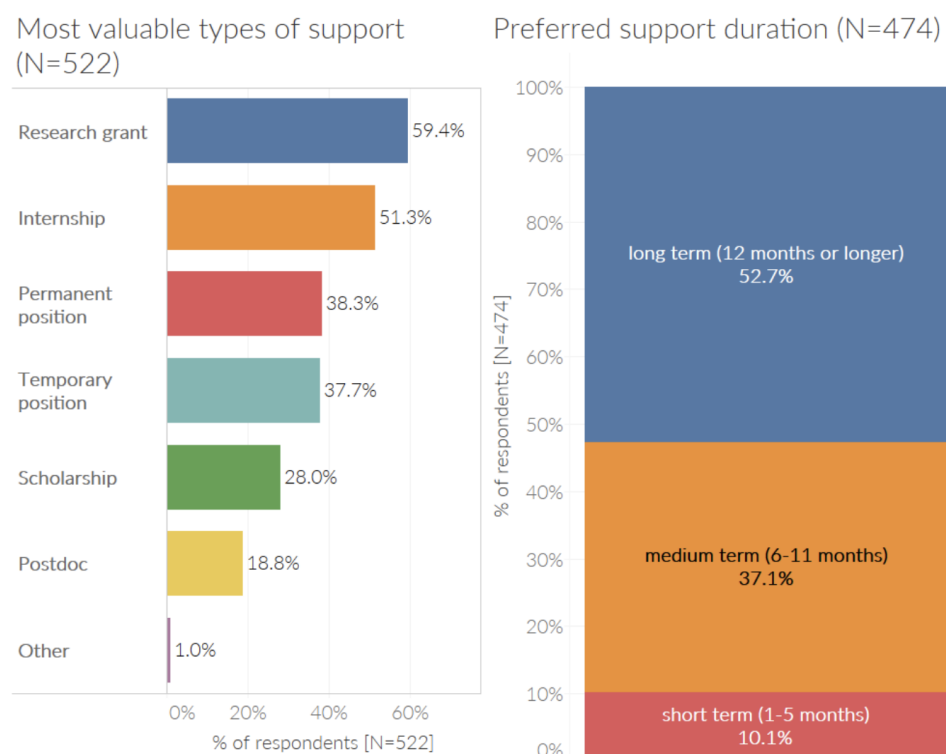
²² https://discovery.ucl.ac.uk/id/eprint/10108656/1/Article11_Pherali.pdf

²³ <https://www.cambridgecognition.com/blog/entry/can-stress-at-work-affect-cognitive-performance>

²⁴ https://zenodo.org/record/7380509?fbclid=IwAR1vqFBU_fWO-7FjbFwTUtCHovjGYadytV18nI5mq9gieqe0mD83y9Wy2e0#.Y6Q99C0RppR

stay, as well as travel grants for attending conferences. Virtual mobility grants would be helpful not only for those Ukrainians who cannot leave Ukraine but also for those who have left, especially for women who encounter difficulties as single mothers abroad and people with disabilities. Early career researchers also mentioned grants for finishing their PhD thesis.

Among other support options, respondents indicated financial and social support (allowance, housing, language courses), involvement in ongoing scientific projects, and non-research jobs. The conductors of the survey interpret these preferences as a need to develop a more meaningful and long-lasting relationship with the hosting institution focused on academic work.



A graph from the 'Beyond Resilience: Professional Challenges, Preferences, and Plans of Ukrainian Researchers Abroad' report

The respondents find accommodation and salary as the most valued support methods. Family allowance, ability to work remotely, and medical insurance were also valued, while

the ability to work part-time, IT equipment, and psychological support were not named as important.²⁵

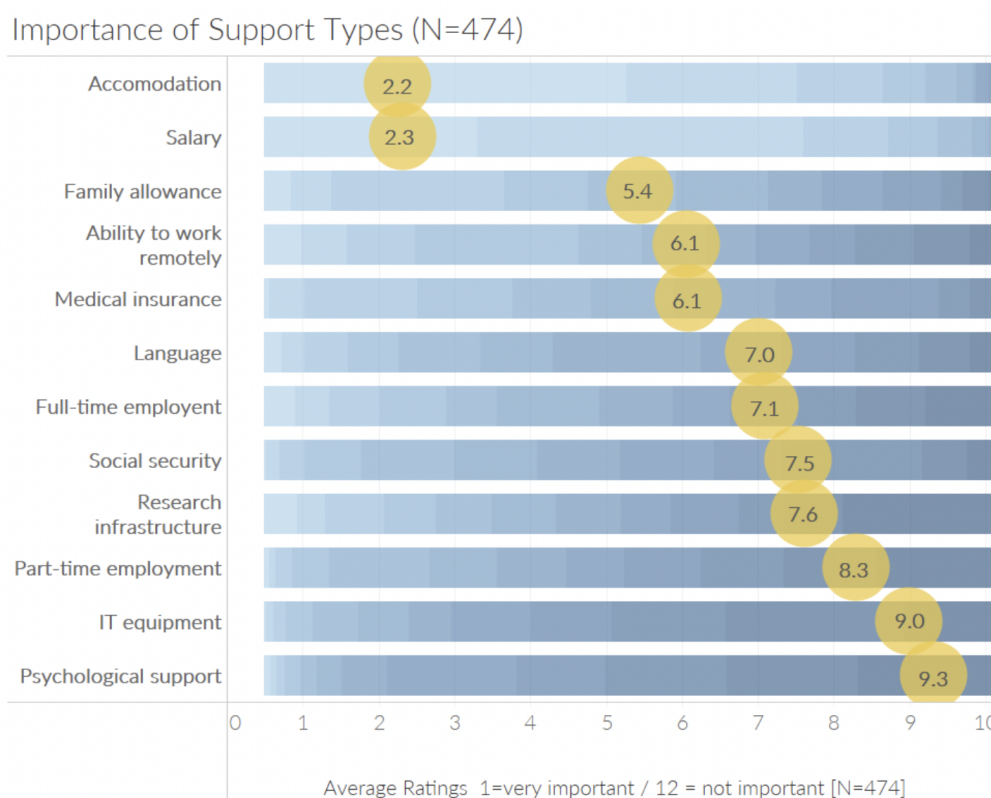


Figure 15. Importance of particular support types.

A graph from the 'Beyond Resilience: Professional Challenges, Preferences, and Plans of Ukrainian Researchers Abroad' report

Ukrainian scientists also pointed out the need for access **to research infrastructure, appropriate modern equipment, computer facilities (some respondents had lost their laptops), and licensed software**. Mentorship was also mentioned, as some researchers need advanced training to obtain new skills and knowledge (for example, preparing research projects, career path development, etc.). While being based abroad, Ukrainian scholars would like to be a part of the local scientific community; respondents therefore find it extremely important to be invited to **conferences, seminars, and other social events for networking with other academics**.

²⁵

https://zenodo.org/record/7380509?fbclid=IwAR1vqFBU_fWO-7FjbFwTUtCHovjGYadytV18nl5mq9gieqe0mD83y9Wy2e0#.Y6Q99C0RppR

The recognition of Ukrainian educational documents without nostrification was also mentioned as a form of support (not all the diplomas of Ukrainian scientists are formally recognized by EU higher education institutions).

There are also **more practical and day-to-day needs**. Coming to a different country most likely without any similar experience, people may need assistance in the most mundane things: bureaucracy (visa applications, grant proposals, etc.), housing, child support, language training for their family members, etc.²⁶. “One of my big concerns is that those who will benefit are those that already know how to navigate European institutions,” states Emily Channell-Justice, an anthropologist at the Ukrainian Research Institute at Harvard University, who has been studying contemporary Ukraine for the past decade.²⁷

However, it is more or less safe to say that the Ukrainian researchers who came to Finland already have more opportunities to receive support from Finnish programs and institutions than those who stayed in Ukraine and can only potentially come in the future or develop joint projects and research (due to the nature of mobility programs, grants, and the bureaucracy of academic employment in Finland). Thus, more attention should be given to those Ukrainian researchers and scientists who remain in Ukraine.

Ukrainian researchers in Ukraine

In the survey conducted by UAScience²⁸, the respondents consist of 32.9% men and 67.1% women researchers. As men over 18 and under 60 cannot leave Ukraine due to martial law, they will remain in Ukraine under any circumstances. And even during winter when the damage to the civilian and critical infrastructure all over Ukraine got worse and prolonged blackouts were an everyday reality for Ukrainians, **most researchers chose to stay despite it all**.

And even now, as winter has come, and the damage to the civilian and critical infrastructure all over Ukraine is getting worse and prolonged blackouts are an everyday reality for Ukrainians, **most researchers choose to stay despite it all**. The reasons vary, though, and can be personal (unwillingness to leave their families behind, need to look after elderly family

²⁶ Conference on the Ukraine Crisis. Response from the European Higher Education and Research Sector. [Conference report](#)

²⁷ <https://sciencebusiness.net/news/ukrainian-researchers-navigate-times-war>

²⁸ <https://www.uascience-reload.org/wp-content/uploads/2022/07/UAS.R-Presentation-Results-English-June-2022.pdf>

members, other obligations, reluctance to leave homes of many years, issues related to their morale: lack of energy or faith in the future, general uncertainty, inability to plan, etc.), legal (martial law), or professional (work contracts in Ukraine, a lack of offers in their respective disciplines, lack of experience in applying for funding, language barriers, diploma recognition issues, lack of established contacts, etc.)²⁹.

Moreover, as Dr. Yuriy Khalavka, a coordinator at the UAScience.reload,³⁰ states, many Ukrainian researchers who fled Ukraine in the first months of the full-scale invasion, are now returning. According to a new survey (results yet unpublished), **around one third of those who had fled earlier have now returned to Ukraine** (mostly to Kyiv) – most of them due to their work contracts with the universities, etc. (Before, they were able to leave and keep their employment because of COVID-19 regulations and rules under martial law that allowed them to work remotely. Now, the working conditions are returning to normal, and most of the employed researchers are required to work offline).

This is what makes the crisis with Ukrainian scholars at risk different from other experiences the world has had in the past, as in the face of Russia's war in Ukraine, most researchers remain in the country.³¹

The researchers who are staying in Ukraine are facing multiple challenges. June data showed that 73% of them **could not continue their research due to bombed labs, and lack of electricity and water**³². Since October 2022, Russia has regularly launched massive missile strikes against Ukraine's infrastructure and energy system. These have had severe consequences for the whole country and its people (e.g., on 23 November, the whole of Ukraine suffered a blackout, and since then, rolling blackouts and emergency outages have become worse)—most of the population experienced prolonged power outages every day. In many cases, the absence of electricity caused a lack of water, heat, connection, Internet, etc.). It is not merely their work that researchers are struggling with, but also their daily lives and needs.

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https://zenodo.org/record/7380509?fbclid=IwAR1vqFBu_fWO-7FjbFwTUtCHovjGYadytV18nI5mq9gieqe0mD83y9Wy2e0#.Y6Q99C0RppR

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<https://www.uascience-reload.org/wp-content/uploads/2022/07/UAS.R-Presentation-Results-English-June-2022.pdf>

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<https://sciencebusiness.net/news/ukrainian-researchers-want-shift-focus-international-support-crisis-response-mode-rebuilding>

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<https://sciencebusiness.net/news/ukrainian-researchers-want-shift-focus-international-support-crisis-response-mode-rebuilding>

Thus, the biggest need now is a functioning work environment and **energy independence**, which would allow researchers to work, teach (for those who work at universities), and study (for PhD students). This need exists on both a personal and an institutional level – while individual researchers need **essential utilities** (power banks, batteries, more modern laptops that would allow work with no electricity), universities need to continuously supply departments with electricity (especially when it comes to labs, etc.), with generators or alternative energy sources (e.g., solar panels). Providing universities with utilities to help with the Internet connection during power outages (e.g., Starlinks) would benefit teaching researchers and their students. These will remain the key needs for at least half a year, Dr. Yuriy Khalavka states in December 2022, as the Ukrainian government says the damage to the energy system will be repaired by summer 2023 (provided that there are no new successful attacks against it).

With that, the UAScience.reload survey³³ defined the other personal needs of Ukrainian researchers remaining in Ukraine as follows:

- **financial support,**
- **re-establishing/building new social contacts,**
- **stable/uninterrupted Internet access.**³⁴

There is also a growing need for a clear positive perspective, projects planned for the nearest future, **assisting ongoing research efforts in Ukraine, and ensuring that Ukraine's science will survive the war and the restoration period after the war is over.**³⁵ “It's very important to find, to build, to implement instruments which can help Ukrainian researchers to remain within their profession within Ukraine,” says Yulia Bezvershenko, visiting scholar at the Ukrainian Emerging Leaders Program at Stanford University³⁶. Ukrainian researchers want to shift the focus of international support from crisis

³³ <https://www.uascience-reload.org/>

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<https://www.uascience-reload.org/wp-content/uploads/2022/07/UAS.R-Presentation-Results-English-June-2022.pdf>

³⁵ Conference on the Ukraine Crisis. Response from the European Higher Education and Research Sector. [Conference report](#)

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<https://sciencebusiness.net/news/ukrainian-researchers-want-shift-focus-international-support-crisis-response-mode-rebuilding>

response mode to long-term support and assistance programs.³⁷ These could include **financial support for:**

- technological and laboratory supplies,
- access to facilities and virtual opportunities for research,
- teaching and studying,³⁸
- research projects to be engaged in,
- remote working contracts,
- remote grants (virtual mobility with ensured funding and scholarships).³⁹

Dr. Yuriy Khalavka, coordinator of the UAScience.reload project, states that one of the ways organizations abroad could help researchers in Ukraine today is, indeed, by offering them **remote (virtual mobility) grants**—thus, making funding more available to them. At the same time, most of the support currently goes to the researchers who have fled Ukraine. “We need to understand that this could be more efficient if we spend money this way,” says Khalavka. “More people could be covered with this support.”⁴⁰ Ukraine’s scientific community has even started a petition for opening remote positions for Ukrainian researchers in international institutions.⁴¹

“As we learned during the COVID-19 pandemic, even those who do not have access to the labs and fields can do computer simulations, theoretical studies, literature reviews, etc. COVID times demonstrated that remote scientific activities could be successfully performed and such employment could be arranged based on existing legal mechanisms. For example, such support could be in the form of micro bilateral grants, remote employment, access to the computational resources, libraries, and databases”, Yuriy Khalavka says (see more on this in the Recommendations section).

When it comes to research grants, it is a very competitive field that “*favors the established and the exceptional, and not the scholars and researchers who are not working on or leading research projects*”⁴². Thus, more **support may be needed by those researchers who have**

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<https://sciencebusiness.net/news/ukrainian-researchers-want-shift-focus-international-support-crisis-response-mode-rebuilding>

³⁸ Conference on the Ukraine Crisis. Response from the European Higher Education and Research Sector. [Conference report](#)

³⁹ <https://sciencebusiness.net/news/ukrainian-researchers-navigate-times-war>

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<https://sciencebusiness.net/news/ukrainian-researchers-want-shift-focus-international-support-crisis-response-mode-rebuilding>

⁴¹ <https://www.change.org/p/universities-open-remote-positions-for-ukrainian-refugee-scholars>

⁴² Conference on the Ukraine Crisis. Response from the European Higher Education and Research Sector. [Conference report](#)

not had previous experience in securing a grant for work. However, according to Dr. Yuriy Khalavka, teaching and mentoring Ukrainian researchers to submit a good grant application is not among the priorities, as there are more urgent issues to be covered and it might only disseminate the general effort. Those researchers whose work is highly likely to be supported are usually already familiar with the application process and requirements.

While remote grants and overall financial support seem to be in highest demand among the researchers remaining in Ukraine, there are **other needs** too:

- access to scientific literature, research databases, journals, online libraries, educational materials for teaching, archives, information, and data, etc.;
- remote access to licensed software, supercomputer possibilities (to conduct calculations with big amounts of data and for data analysis), the research equipment and the laboratories in foreign institutions, and the potential to send samples for research by physical and chemical methods (e.g., synthetic chemical laboratories were mentioned specifically);
- communication with research teams/colleagues;
- re-establishing/building new social contacts;
- joint publication activities and research projects (including joint research projects where a scientific partner abroad would help with conducting experiments, etc.);
- consultations on patent-related issues in the EU;
- participation in online events free of charge;
- additional training in academic English;
- academic mobility programs to be implemented when the invasion has ended.^{43,44}

Dr. Yuriy Khalavka states that some of these needs are already covered, like journal subscriptions and access to online libraries. According to him, as part of this demand has already been met, the effect of additional support in this area would not be that big. What is more important is **direct financial support, support with essential utilities, equipment, and energy supply, and long-term cooperation with universities** and research institutions in Ukraine. Dr. Yevheniia Polishchuk from the Young Scientists Council at the Ministry of Education and Science of Ukraine agrees and adds that some researchers are simply unable to continue their research (due to destroyed labs, for example), and would

⁴³ <https://www.uascience-reload.org/>

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<https://zenodo.org/record/6413145?fbclid=IwAR14pSN4IA61PRJ3eY-SL-NiV3wsoj9L6r0mJtyD0wGQo64JzPHRWn5HE7Q#.Y4Euxi0RppR>

benefit immensely from direct cooperation. She adds that while covering such needs as **psychological and mental support or consultations/mentoring** is important, it should not be a priority (especially in an online format, as when people have limited access to electricity and connection, attending such meetings will not be among their priorities).

It is also worth mentioning that in 2023, and probably in the ongoing years, the financial support of research in Ukraine will drop. **Scholars conducting their research outside the fields that meet the country's defense needs may face harsher working conditions than others.** In 2022, Ukraine had to rearrange its budget for defense needs, and in 2023, the wartime research budget places a strategic focus on meeting the demands of the country at war, including defense needs. According to Andrii Vitrenko, 1st Deputy Minister of Education and Science of Ukraine, the goal is to make researchers part of the effort to stop Russia's aggression⁴⁵.

As national financing is shifting towards research projects beneficial for the country's defense, researchers in other fields of study may find themselves in a less stable position. Already in 2022, there was a significant decrease in research grants due to the urgent rearrangements in the war budget (The National Research Foundation of Ukraine received only 40% of the funding it was meant to receive in 2022⁴⁶). Thus, there is a **need to consider financial support for National Research Foundation of Ukraine grants** that have been interrupted (both competitive grants and grants aimed at keeping staff at work)⁴⁷. Outside support will be needed in these areas to keep the science system balanced in Ukraine and strengthen its connections with the international scientific community.⁴⁸ The Ministry hopes that international collaboration will help compensate for some of the loss in research capacity.⁴⁹

However, given that there is an imbalance between the humanities and other fields of science in Ukraine, which is not particularly beneficial to the development of science in Ukraine, some believe that while researchers in humanities do need support, they should not be given any special attention over other fields, as STEM fields of research need stimulation too. Dr. Yuriy Khalavka says that when giving opportunities to researchers in humanities in

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<https://www.ukrinform.ua/rubric-society/3619489-andrii-vitrenko-persij-zastupnik-ministra-osviti-i-nauki-ukraini.html>

⁴⁶ <https://sciencebusiness.net/news/ukraines-research-and-innovation-community-eyes-better-future>

⁴⁷ Conference on the Ukraine Crisis. Response from the European Higher Education and Research Sector. [Conference report](#)

⁴⁸ Conference on the Ukraine Crisis. Response from the European Higher Education and Research Sector. [Conference report](#)

⁴⁹ <https://sciencebusiness.net/news/ukraines-research-and-innovation-community-eyes-better-future>

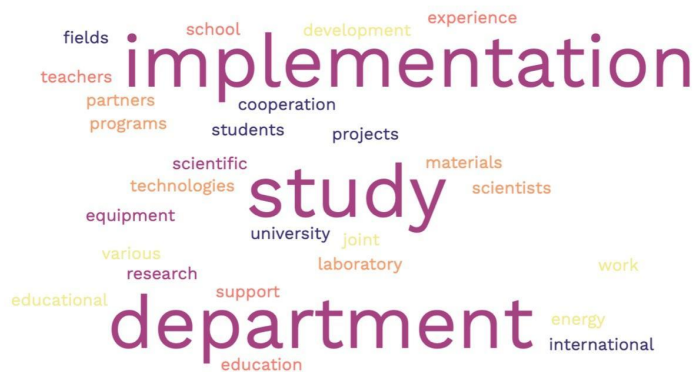
Ukraine, there should be specific requirements so that people in the field grow and make relevant contributions.

As for the institutional needs, the ScienceForUkraine initiative has established a mechanism for Ukrainian scientific **institutions and universities to state their current needs** and make them accessible to those willing to help. This mechanism is a regularly updated [database](#). Every institution finds itself in a different situation—some universities have been bombed, some are in Russian-occupied territories, some have had to move, whereas others have refused and stayed in damaged buildings. However, most of them suffer from recurring problems. According to the requests made by the universities themselves, the most frequent needs are currently related to the following keywords:

- Cooperation offer—42
- Engineering & technology—39
- Support request—30
- Natural sciences—29
- Social sciences—25
- Humanities & the arts—19
- Medical & health sciences—16
- Agricultural & veterinary sciences—13
- Unspecified—8



A word cloud based on the keywords used in the requests by universities



A word cloud based on the most popular words used in the requests by universities

Methodological cooperation, partners for ERASMUS+ programs, equipment support requests (one of the most popular requests in the database), student exchanges, joint research opportunities and partnerships, and the involvement of international specialists in the educational process are all among the requests placed by the universities in the database.

According to Dr. Yuriy Khalavka and Dr. Yevheniia Polishchuk, as of January 2023, the most urgent need is for essential utilities, energy supply, and Internet connection solutions (while the situation improved in February, the need is still there, as the war continues). Young Scientists Council shared a list of universities that specifically need **generators** (diesel generators with a capacity of 30 kW, three-phase) right now:

1. Mariupol State University
2. Admiral Makarov National University of Shipbuilding
3. Dnipro University of Technology
4. National University "Zaporizhzhia Polytechnic"
5. National University "Yuri Kondratyuk Poltava Polytechnic"
6. National University Chernihiv Polytechnic
7. V. N. Karazin Kharkiv National University
8. Kherson State Maritime Academy
9. Kherson State Agrarian and Economic University
10. Kherson State University
11. Sumy National Agrarian University

Apart from this, Ukrainian universities need **prolonged cooperation with universities abroad**. Partnerships, exchanges, internships, etc. would not only support the universities and science in Ukraine but also help keep young researchers within the scientific field, as they will be able to see a clear perspective. The key here is that this cooperation has to be long-term. Maija Airas from the Finnish National Agency for Education EDUFI says that, indeed, such cooperation would be beneficial for further institutional and beneficial support, as due to the lack of such connections between Finnish and Ukrainian universities, not all opportunities provided by the Finnish side were taken up by Ukrainian researchers.

It is important to note that **meeting the urgent needs and forming long-term relations and cooperation with Ukrainian researchers and institutions is vital**. While the former will help keep Ukrainian science afloat, the latter will help integrate it into the global scientific community and benefit the scientific field of the assisting countries—such as Finland—by bringing more people to develop science here during joint projects, etc.

2. Overview of Finland's main supporting institutions and programs

“Finnish funding instruments can be a jumpstart for Ukrainian researchers.”⁵⁰

Since the beginning of the full-scale invasion, the international community, Finland in particular, has supported Ukrainian researchers. Almost immediately, Finland launched an action plan to support Ukrainian researchers. So far, most of the support has been ad hoc and aimed at those who have left the country—researchers who found themselves abroad, fleeing the war. Finnish universities opened up new opportunities for Ukrainian researchers to continue their research work in Finland.

The Ministry of Education and Culture used separate funding to support Ukrainians with their studies. It was estimated that these measures could provide study opportunities to anywhere from 2,000 to 4,000 students. In addition, the Ministry allocated additional funding to the Academy of Finland for the mobility of researchers⁵¹.

In Finland, there are different ways to support Ukrainian researchers—both the ones coming to Finland and others staying in Ukraine. Some arose as a response to the full-scale invasion of Russia into Ukraine after 24 February 2022, while others have been there longer and have focused on general mobility grants, supporting scholars at risk, and assuring international scientific cooperation. This section lists the major supporters and states their roles (both active and potential) in helping Ukrainian researchers during these challenging times (or further in the future). These are foundations, universities, government entities, and grass-roots initiatives.

#ScienceForUkraine

#ScienceForUkraine is a grass-roots initiative, a community group of volunteer researchers and students from academic institutions around the world. The initiative aims to support the Ukrainian academic community in surviving Russia's war and help ensure the continuity of Ukraine's science and strengthen its presence in the international science arena.

The initiative also works in Finland.

⁵⁰ Maija Airas, Head of International Higher Education Cooperation at EDUFI during the interview for the report

⁵¹

<https://valtioneuvosto.fi/en/-/1410845/finland-launches-action-plan-to-support-ukrainian-higher-education-students-and-researchers>

There are four major goals that #ScienceForUkraine implements:

- **to collect and disseminate information about support opportunities** at the university, national, and international levels for Ukrainian researchers and students;
- **to monitor the current situation of Ukrainian research**, higher education institutions, and scholars and students (both those in Ukraine and those who have fled) and closely follow decisions taken by governments and funding agencies, announced support mechanisms, and general funding schemes;
- **to raise awareness among the international academic community**, national governments, funding bodies, and international organizations of the need to support Ukrainian scientists and students;
- **to build partnerships with Ukrainian and international academic institutions**, research organizations, and initiatives supporting scholars at risk to leverage impact, exchange information, and implement joint efforts in support of the Ukrainian academic community; to liaise with national and European funders and organizations to provide targeted support for Ukraine's academic community.⁵²

The two main assets of #ScienceForUkraine in Finland are the databases:

- the first one [gathers together all research positions and paid jobs](#) provided by Finnish universities and institutions.

By September 2022, Finnish universities and research organizations had listed 60 support offers on the #ScienceForUkraine website, of which 45 were aimed at researchers and 15 at students⁵³. One of the problems that #ScienceForUkraine in Finland encountered was unfilled positions—as described in detail above.

- the second one gathers together [specific support requests](#) from Ukrainian universities (from joint research projects to research equipment and materials). Thus, #ScienceForUkraine has adopted the role of communicating the needs of Ukrainians and helping them find a targeted response.

Essentially, #ScienceForUkraine is a communicator that is useful in meeting researchers' needs and channeling the assistance capacity of the institutions in Finland.

⁵² <https://www.scholarsatrisk.org/2022/03/solidarity-with-the-people-of-ukraine-and-ukrainian-higher-education/>

⁵³ <https://www.tieteessatapahtuu.fi/numerot/5-2022/scienceforukraine-suomi-tiede-ja-sota-aika-reflektoida>

Limitations: It is a platform that is limited by what is put into it, as it acts like a mediator. #ScienceForUkraine cannot change the essence of the influx of opportunities or meet any of the needs itself.

Scholars at Risk

Scholars at Risk works to protect threatened scholars and promote academic freedom around the world. In Finland, SAR started its operations in 2017 and has been supported by the universities in Finland. Currently, all Finnish universities are members of SARF (Scholars at Risk Finland).⁵⁴

Since the beginning of the full-scale invasion in Ukraine, SAR has launched an assistance campaign urging its members to provide Ukrainian scholars with opportunities abroad.

Limitations: SAR has clearly stated its position regarding scholars from Russia, condemning the elimination of contacts and support of Russia's academic community.⁵⁵ This may reflect the organization's general values. However, it may harm the Ukrainian community, possibly putting scholars in Ukraine suffering from the military aggression of Russia and scholars from Russia on a similar ground and equal basis, thus creating hindrance for the general principles of sanctions against Russia. Such an attitude is condemned by many within it.

During the interviews conducted for this research, various interviewees stated that the SAC response to the war in Ukraine was not very efficient, as certain limitations have not been taken into account in the provided opportunities:

- unlike the previous experience the international academic community has had with scholars at risk, most of the Ukrainian scholars needing support remained in Ukraine, while most of the opportunities provided lay abroad⁵⁶;
- lack of the level of English language necessary to conduct academic work by Ukrainian researchers was a significant hurdle for them to use the provided opportunities;
- the positions offered via SAR networks did not correspond with the academic capacities of Ukrainian researchers;

⁵⁴ <https://www.utu.fi/en/sar>

⁵⁵ <https://www.scholarsatrisk.org/2022/03/solidarity-with-the-people-of-ukraine-and-ukrainian-higher-education/>

⁵⁶ <https://sciencebusiness.net/news/ukrainian-researchers-want-shift-focus-international-support-crisis-response-mode-rebuilding>

- the requirements for the positions were without considering the realities of Ukrainian science (e.g., many Ukrainian scholars lack publications in Scopus).

Major grant providers in Finland

Grants are one of the primary ways for Ukrainian researchers to continue their research abroad, including in Finland. The major organizations providing grants in Finland have been actively supporting Ukrainian researchers since 24 February 2022.

Kone Foundation is an independent and unaffiliated organization that awards grants to promote academic research, culture, and the arts. In light of Russia's full-scale invasion of Ukraine, Kone Foundation launched additional support for researchers and artists fleeing the war in Ukraine by offering grants and residencies with additional funding of nearly 400,000 euros. Most of it was implemented via the universities Kone Foundation cooperates with.

“We have tried to make quick funding decisions and use existing structures to channel support that will rapidly reach Ukrainian, Russian, and Belarusian researchers and artists fleeing their home countries. Long-term support from foundations for Ukrainians, as well as for Russians suffering under a dictator, will be necessary for the future too. Philanthropic work is also peace work,” says Kalle Korhonen, Director of Funding.⁵⁷

At the same time, according to Kalle Korhonen, the Foundation distinguishes between Ukrainian and Russian scholars when considers provision of support. Kone Foundation stated that it complies with the sanctions imposed on Russia by Finland and the EU⁵⁸. Thus, for example, currently, the Foundation doesn't pay grants to Russian bank accounts⁵⁹.

Limitations: Statute restrictions, such as only those who are connected to Finland (either personally or by their research topic) or are in Finland can apply and get support. For many opportunities, Ukrainian researchers have to have someone vouch for them and apply for them in Finland (invitational fellowships). Given the previous lack of academic ties between Ukrainian and Finnish communities, this is a challenge for many, and most have no access to this opportunity. There are only a few existing connections.

⁵⁷ <https://koneensaatio.fi/en/news/kone-foundation-supports-researchers-and-artists-fleeing-the-war-in-ukraine/>

⁵⁸ <https://koneensaatio.fi/en/news/ukraine/>

⁵⁹ <https://koneensaatio.fi/en/news/advice-for-grantees-affected-by-the-situation-in-ukraine/>

The Academy of Finland is a government agency within the administrative branch of the Finnish Ministry of Education, Science, and Culture. As its main tasks, the organization provides grant funding in open competitive calls for scientific research and researcher training and improves framework conditions for research.

In July, The Academy of Finland granted 500,000 euros in funding to invite nine researchers from Ukraine to Finland. The invitees will work in Finnish research teams that have applied for funding from the Academy. Most of the research organizations applied for two-year financing for the visits⁶⁰.

The funding is granted to the host organizations in Finland that invited the researchers from Ukraine. The inviters undertook to assist the invitees in practical arrangements and in issues related to settling in Finland.

Limitations: The applicant is a researcher based in Finland and has close connections to Finland. The applicant must have a doctoral degree. The applicant acts as the contact person of the invitee and undertakes to assist them in practical matters, such as finding accommodation and a workspace for the duration of the visit.⁶¹ The invitee must have a clear affiliation with a Ukrainian university, research institute, or similar research facility where their research work has been prevented due to the consequences of the Russian attack on Ukraine. The researcher has been or is at risk of being forced to flee Ukraine due to the war in 2022.

Among other major grant foundations in Finland is the **Finnish Cultural Foundation**, a private foundation dedicated to promoting art, science, and other fields of intellectual and cultural endeavor in Finland. However, so far, it has been mostly engaged in supporting Ukrainian children's art activities.⁶²

The **Finnish Society of Sciences and Letters** has also been an active supporter of Ukrainian researchers. In March 2022, they opened a call for grants that could be awarded to Ukrainian citizens in Finland or Finnish researchers for inviting Ukrainian citizens to carry out research work in Finland. The tax-free grants that can be used for travel and living costs

⁶⁰

<https://www.aka.fi/en/about-us/whats-new/press-releases/2022/9-researchers-from-ukraine-invited-to-finland-with-funding-from-the-academy-of-finland/>

⁶¹

<https://www.aka.fi/en/research-funding/apply-for-funding/calls-for-applications/apply-now2/call-for-inviting-researchers-from-ukraine-to-finland/>

⁶² <https://skr.fi/en/whats-new/cultural-foundation-grants-eur-400000-support-ukrainian-childrens-art-activities>

amount to up to 2,040 euros per month and can be applied for as long as the war continues⁶³. By the end of March, the Society had awarded 100,000 euros to eight Ukrainian researchers for scientific work at Finnish universities⁶⁴.

Assistance by universities

A big pillar for Ukrainian researchers is assistance provided by universities either through their initiative or with funding from major foundations and institutions. All universities have supported Ukrainian scholars fleeing the war; some have even helped arrange their departure from Ukraine and accommodation for their first time in Finland.

The assistance provided by the universities varies and can be quite comprehensive. The assistance provided so far, e.g., by the University of Helsinki has included:

- offering open university studies,
- limited study rights,
- Erasmus-funded placements,
- extending contracts of scholars already on staff,
- establishing a university-wide salary support scheme for up to 20 new Ukrainian scholars (three scholars have been placed so far, so the demand has been slightly lower than anticipated),
- raising funds from foundations and private individuals for the support of Ukrainian students and scholars,
- involvement in sharing ideas and good practices via Scholars at Risk Finland and other networks,
- helping scholars obtain necessary financing through grant funding,
- personal initiatives of the university staff to support Ukrainian researchers.

Limitations: personal connections and networks (there are not enough of these established between Ukrainian and Finnish academic communities), financing, and the initiative of certain departments (some do not have any).

*Note that some of the stakeholders mentioned below could help establish academic connections between Ukraine and Finland and promote mutual development with post-war perspectives.

⁶³ <https://scientiarum.fi/eng/1660-2/>

⁶⁴ <https://scientiarum.fi/eng/the-finnish-society-of-sciences-and-letters-has-awarded-grants-to-ukrainian-researchers/>

EDUFI (Finnish National Agency for Education)

Essentially, EDUFI is a state organization working under the Ministry of Education and Culture. The agency mostly works with funding instruments and international cooperation, projects, and mobility. One of the main objectives of the agency is to promote international cooperation in education, and that is the area where the agency could channel its resources to assist Ukrainian researchers fleeing the war (or even staying in Ukraine).

As the agency mainly works in the field of education and not research (although there are limited programs for postdocs as well), its target activity in terms of helping young researchers is assistance to doctoral students. The following are the instruments the agency already uses to support researchers and doctoral students at risk:

- Scholar Rescue Fund program (support for researchers from conflict regions);
- participation with Scholars at Risk;
- cooperation with the Erasmus+ program;
- special measures targeted at staff and students fleeing Ukraine;
- a call for doctoral students who have fled Ukraine and would like to continue their studies in Finnish universities or in Ukrainian ones while residing in Finland (via the universities, aiming for 20 scholarships, 14 out of 15 applications filled by December 2022);
- scholarship support via universities;
- a call for proposals for cooperation projects with Ukrainian and Finnish universities to nurse doctoral research cooperation in the future (planned for spring 2023, under the TFK program—details below).

❖ TFK (Team Finland Knowledge) program (under EDUFI)

The purpose of the Team Finland Knowledge program is to create and strengthen cooperation between Finnish higher education institutions and the target regions and countries selected to the TFK network, and to design new operating models for cooperation. The program funds educational cooperation between higher education institutions through cooperation and mobility projects⁶⁵. The program budget is 1.4–1.8 million euros, the max. support is 80 000 euros/project, and the length of the project can be up to 2.5 years.⁶⁶

⁶⁵ <https://www.oph.fi/en/programmes/tfk-programme>

⁶⁶ https://www.oph.fi/sites/default/files/documents/Ukraina-keskustelutilaisuus_korkeakouluille_OPH_24.11.2022.pdf

So far, the geographical distribution of the projects looks like this (the orange pins are for projects in 2022, and the blue ones are for projects in 2021):⁶⁷



Forms of cooperation:

- joint study units, courses, and intensive courses,
- the development and realization of digital/virtual teaching,
- curriculum cooperation,
- joint/double degrees,
- working life cooperation,
- mobility (teacher, staff, student, and/or trainee mobility).

EDUFI also included Ukraine in the projects under TFK in 2023 (open call in 2023)⁶⁸. Given that the situation in Ukraine is quite different from the usual partners, the cooperation will be modified (for instance, according to Maija Airas, head of International Higher Education Cooperation at EDUFI, more virtual cooperation will be in place due to the risks connected to the mutual travel of students and staff):

⁶⁷ <https://www.oph.fi/en/programmes/tfk-programme>

⁶⁸ <https://www.oph.fi/en/programmes/tfk-programme>

- As part of the TFK program, a separate call is organized to support cooperation with Ukrainian higher education institutions, emphasizing Ukraine's needs for strengthening academic cooperation and capacity building.
- Participating projects can be related to one or more of the following forms of educational cooperation:
 - o development and implementation of digital/virtual teaching
 - o joint planning and implementation of study periods and courses
 - o curriculum cooperation
 - o joint/double degrees
 - o teaching visits (physical and virtual)
 - o supporting the mobility of students from Ukraine to Finland.
- The separate application will be carried out in a simplified manner, but in the same timeframe as the program's actual application round in spring 2023 (the application round ends in May 2023).
- The duration of the projects is a maximum of 2.5 years, and the maximum support for one project is the same as for other TFK projects (€80,000)⁶⁹.

❖ **SIMHE (Supporting Immigrants in Higher Education in Finland)**

SIMHE describes its aim as 'to streamline the identification and recognition of the prior learning of **highly educated migrants arriving with different statuses** as well as to facilitate their access to higher education, completion of degrees and employment in the Finnish labor market at the national and regional levels'⁷⁰.

SIMHE essentially consists of several services provided by higher education institutions and partly funded by the Ministry of Education and Culture. EDUFI's role here is to coordinate, lead the network, and support the universities in the work they do, specifically in terms of joint development, says Maija Airas. Mostly, SIMHE's activities are about advising and guiding those who would like to continue their studies or start studying at Finnish universities. Considering that SIMHE services have already helped Ukrainians fleeing to Finland with information regarding educational opportunities, they can be utilized to support the young Ukrainian researchers and doctoral students in the long run (e.g., the University of Jyväskylä has the most experience with SIMHE and supporting researchers).

⁶⁹ <https://www.oph.fi/en/programmes/tfk-programme>

⁷⁰ <https://www.oph.fi/en/simhe-services-higher-education-institutions>

Thus, this instrument could be helpful in the engagement of Ukrainian researchers/students (who may later become researchers) to ensure the future ties between Ukrainian and Finnish scholars. Besides, as SIMHE states its' objective as 'benefiting the entire Finnish field of higher education and mainstream good practices and models nationally' and 'ensuring that the prior learning and previously completed qualifications of highly educated migrants arriving in Finland would be identified and recognized in accordance with national practices as soon as possible, giving these persons access to appropriate education and career paths',⁷¹ it would only be natural to consider using the initiative more to benefit highly educated Ukrainians in Finland who find themselves in underqualified positions due to a lack of language skills or an inability to integrate into the Finnish society.

SIMHE cooperates with ten universities all over Finland, each of which provide support and guidance for immigrants seeking higher education or its continuation. The program and the universities' capacities in this regard can be used to deepen the connections between Ukrainian and Finnish fields of education and to enrich the Finnish science landscape. As some of the universities under SIMHE provide language studies (English or Finnish) online, this could be one of the tools for engaging and preparing Ukrainian students and researchers for deeper Finnish-Ukrainian research and educational cooperation. This could be a more effective solution in a long-term situation.

Limitations: lack of previously built contacts and links between Ukrainian and Finnish universities (thus—few people applying for the opportunities, as the numbers reflect the state of academic cooperation—students are not isolated individuals, they are linked to their home universities); lack of permanence—there are funding opportunities for one or two years, but the lack of longer commitment puts a lot of stress on researchers (however, cooperation with universities may bring more long-term opportunities for the researchers); potentially causing a problem of 'brain drain' in Ukraine (by SIMHE); limitations caused by the Ukrainian side (Ukrainian universities' statutes forbidding the use of funding for certain activities/wages from outside the system, etc.) + bureaucratic issues (e.g., with joint or double degrees established between Ukrainian and Finnish universities); in terms of scholarship mechanisms—their lack of applicability outside Finland (as they are calculated to cover expenses specifically in Finland); both SIMHE and EDUFI are mostly focused on educational cooperation, not research.

⁷¹ <https://www.oph.fi/en/simhe-services-higher-education-institutions>

3. Recommendations for further assistance

In Ukraine, the issue of keeping science and research afloat during the war and in the post-war period is essential for many reasons. One of them is that rebuilding the country is impossible without investing in research and innovation. Helping the Ukrainian research community will not only ensure that, but will also be beneficial for the foreign partners as the assisting countries will gain more resilience by helping scholars at risk, enrich their scientific and research landscape, and create stronger networks within Europe. The main task, for now, is **to keep Ukrainian researchers within the scientific field**.

The particular uniqueness of the situation with Ukrainian researchers requires new solutions to be found and implemented to assist the Ukrainian research community. Most of the support provided so far involves helping and funding Ukrainian researchers abroad, while the absolute majority of the researchers have chosen to stay or return to Ukraine. This is the first thing that needs to be considered.

As of the beginning of 2023 and for the following six months, the most beneficial forms of support **for those Ukrainian researchers who continue to reside in Ukraine** will be the following:

- **support with energy independence** (both on a personal and institutional level):
 - providing Ukrainian researchers (those working in the universities or the academies, and the youngest generation—PhD students) with power banks, batteries, laptops—essential equipment or funding for it, so that they could continue their work in energetically compromised environments. One of the options here is to make an open call for PhD students and professors (with specific conditions for them to apply for assistance, like articles in SCOPUS, reference by their supervisor, if needed— connection of their research to Finland, etc.)
 - assisting Ukrainian universities with essential utilities (providing generators and possibly small funding for fuel, solar panels, Starlinks), especially those departments that need an uninterrupted electricity supply for labs, etc. (Generators, Starlinks and EcoFlow accumulators are short-term, but effective and very much needed solutions. Dr. Yuriy Khalavka emphasizes that even a small solar panel would be very valuable to Ukrainian researchers—installing one such panel would provide up to 20 scholars with electricity and access to

their equipment, not to mention the hundreds of students who would benefit as well).

- **financial support for the researchers remaining in Ukraine.** The key here is its long-term nature, and the solution might lie in virtual mobility, remote grants, or scholarships. Even minor financial support would be crucial. Dr. Yuriy Khalavka adds that even grants of 100–200 euros per month would be of great benefit to Ukrainian researchers and would allow them to stay within the science field. Among the entities that already provide such long-term grants (on average a year long), are the Institute of Electrical and Electronics Engineers, Simons Foundation in the US, and others.
- **offline events and opportunities for the researchers.** To keep Ukrainian researchers in their early careers within the scientific field in Ukraine, organizing and holding offline events for them abroad (for example, summer schools, etc.) would be highly beneficial. First, people would be excited to have the opportunity to go abroad for a short period and experience some sense of ‘normality’ (male researchers might also be able to attend, provided that their universities contributed to this by asking the Ministry of Education to permit them to leave for a short term). Second, it would benefit the creation of networks and involvement with European colleagues, and thus, would be helpful in any further cooperation. Third, it would be educational and motivational to see how researchers work abroad (or what the labs or technoparks look like, etc.), have a clear perspective or aspiration, and possibly take this experience to further support applications (say, when applying for a grant, include the acquisition of certain equipment to conduct the research more efficiently). For PhD students, such events may be especially beneficial and helpful in finishing their studies and continuing their academic careers. Making such events regular would further foster the feeling of support and lend perspective to Ukrainian researchers. The selection of participants should be conducted by both parties with a clear vision of the aims of such cooperation. The experience of running a similar event in Poland shows that at least four months of preparations are needed to ensure a smooth event.
- **mentorships, mental/psychological support, training, and other events held online and aimed at supporting Ukrainian researchers** may also be beneficial, but it should be noted that they will not be as efficient under the current circumstances. As Ukrainians often experience power outages and even prolonged blackouts (say, in December, there were neighborhoods in Kyiv that were out of power for a week), attending such online events will not be a priority for researchers as they have other, more urgent things to take care of. While Ukrainian researchers certainly need psychological support and networking, communication with colleagues, training

sessions (e.g., how to create a good application for grant support), etc., there may be more efficient ways to spend the funding allocated to supporting them under the current circumstances. It would also be efficient to conduct such events **on request** to ensure they are needed at a certain time.

Olga Polotska, executive director of the National Research Foundation of Ukraine, notes that researchers' needs during wartime cannot be generalized, as some are in worse situations than others.⁷² That is why it is still important to **address the needs focally, based on the individual cases of** research institutions and people. To manage this, foreign institutions willing to help may use the assistance of institutions in Ukraine that strive to assist and help researchers there. All of the above suggestions would be possible to implement with informational support and consulting by the Ukrainian side. Such entities could be, for example, the UAScience.reload initiative or Young Scientists Council at the Ministry of Education and Science.

For those Ukrainian researchers who are already abroad or might be planning to leave Ukraine temporarily due to the war, there should be a clear understanding of why they should choose Finland and how the system works here. Therefore, the following should be done:

- continuous **financial support** of Ukrainian researchers' projects and their lives here in Finland;
- creating a **comprehensive guide** about the academic system in Finland and how it works (like [this one](#) created in Sweden) as there seems to be a lack of centralized information for Ukrainian researchers about the research and educational system in Finland, which occasionally causes confusion;
- regular **seminars/master classes** about the research/education system in Finland, etc. Having someone from abroad who has done it before and can therefore highlight the issues that might not be obvious to natives might also be beneficial.
- those researchers who are already in contact with universities would benefit from having a clear understanding that they have a **contact person** who can help and support them at any time;
- **language courses**—both English and Finnish—to help those Ukrainian researchers who do not have a sufficient language level to conduct their research in Finland, and their family members. (Such activities can also be beneficial for those Ukrainian researchers who are only considering moving abroad for now, if the courses are held online with a certain degree of flexibility and aimed at integrating people into the

⁷² <https://sciencebusiness.net/news/ukraines-research-and-innovation-community-eyes-better-future>

Finnish academic system beforehand. This would also benefit the Finnish side as it will make the researchers' integration smoother and will lift some pressure from the Finnish side upon their arrival);

- **inclusion and integration in the local academic community**—invitations to conferences, seminars, and other social events for networking with other academics;
- an optional and less urgent **long-term solution** could be ongoing work with Migri and other governmental entities to ensure an easier process for the researchers as they enter Finnish society (e.g., tackle the extra-long times for opening bank accounts, etc.) and stay here. As Kalle Korhonen, Director of Funding at Kone Foundation emphasizes, it would be beneficial for Finnish society if scholars from abroad could conduct their work for more extended periods in Finland.

While personal support is very beneficial and efficient, special attention should be paid to systemic and continuous institutional cooperation. **Institutional cooperation** would be beneficial for the development of science in Ukraine, while also being valuable for the Finnish side, creating stronger links and community between Ukraine and the rest of Europe, and providing certain resilience and relevant experience to the Finnish system, should another emergency happen to cause a wave of refugee researchers coming to Europe or staying home but still needing support from abroad. That is also something that will ensure the sustainability of all the support provided to Ukrainian researchers now and will make the results of this support more long-lasting and more mutually beneficial. Such cooperation would also minimize the problem of 'brain drain' in Ukraine while contributing to the scientific development of both sides involved. Apart from the support with energy independence mentioned above, the following should be done:

- creating **long-term partnerships** and relations, functioning networks, joint programs, and projects between Ukrainian and Finnish universities with systemic manifestations (such as exchanges, internships, conferences, networking events, scholarships, etc.). One of the options suggested by Dr. Yuriy Khalavka was creating mentorship programs within the cooperation of two universities where the Finnish side gets to mentor the Ukrainian side where relevant, which would allow ideas to flow between partners and enrich both universities' scientific lives. There is also a possibility of launching joint degrees if the bureaucratic mechanisms allow for it;
- supporting Ukraine's **scientific infrastructure**. Due to Russia's aggression, many laboratories and other parts of the scientific infrastructure were significantly damaged or destroyed all over the country, so special assistance would be needed in rebuilding this infrastructure, as the researchers who stayed in Ukraine are unable to

continue their work, and those who have left Ukraine will not be willing to return if there are no clear prospects for work. One of the ways to ensure this could be, for example, a policy where universities in Finland with outdated equipment could donate it to Ukrainian partners;

- **new forms of online communication** for PhD students (and other researchers) that will ensure their continuing work and contribute to the creation of joint projects with Finnish partners. For example, here is one possible format for this: when a Ukrainian researcher has an idea for conducting an experiment but does not have the capacity to carry it out, a Finnish colleague could come to their aid. The results of such work would be joint;
- **support for structural changes** within the Ukrainian education and academic system. As we have witnessed, the positions offered via SAR networks or #ScienceForUkraine did not correspond with the academic capacities of Ukrainian researchers, and the disbalance within the educational system of Ukraine became as apparent as ever. While financial support for social sciences and humanities should stay at the former level, special attention should be given to the support of the STEM field of research as it may be the driver of Ukraine's restoration and creation of meaningful contacts and cooperation with the Finnish research community. Thus, the promotion of institutional collaboration and exchange of experience with the governmental bodies and other academic institutions in Ukraine may be helpful here;
- on a smaller scale, to help and elevate the level of scientific research in Ukraine, **training and mentorship programs for young supervisors (under 40 years old)** should be held to ensure the improved efficiency of doctoral education;
- to cover specific requests, please refer to the database by #ScienceForUkraine [here](#).

Attracting scholars to Finland: what to do? (long-term):

Strengthening international connections with the Ukrainian side would be key here. Possible activities could include:

- virtual mobility grants, international conferences, and joint projects with the Finnish side;
- engagement and inclusion of Ukrainian scientists in the wider scientific community, providing them with contacts and necessary skills (starting from languages to the skills needed for making a grant application) would also make it possible for those Ukrainian scientists staying in Ukraine during the war to participate in a global scientific effort more actively later, take part in mobility programs for scientists,

develop joint research projects with foreign colleagues or for foreign institutions (including in Finland).⁷³ So the recommendation is to provide this for those staying in Ukraine now in order to make cooperation more feasible in the future and create a win-win solution. These activities could include language training, mentoring hours, joint projects, etc.

Follow-up activities:

Staying in touch with Ukrainian colleagues in Ukraine and the Ukrainian community in Finland, and other stakeholders would also help as they are able to provide up-to-date information about the needs, where assistance is most needed, and the best ways to support the scientific process in Ukraine and the people who conduct this work. In addition, such cooperation would allow to establish 'umbrella' solutions by finding organizations and partners in Ukraine that could manage the distribution of assistance among researchers based on their current needs or ask for particular programs/things in specific periods. It would also help in understanding how to make the cooperation mutually beneficial. Overall, as the situation is very dynamic, regularly checking up on the needs and responses would be helpful to stay on top of them and modify the effort so that it is mutually beneficial and efficient.

Specific attention should also be paid at all times to the way Finland supports researchers from Russia and Belarus. Offering grants to Russians and Belarusians on an equal footing with the Ukrainians should not be acceptable, as putting scholars suffering from the military aggression of Russia and scholars coming from Russia on a similar ground and equal basis creates a hindrance for the general principles of sanctions against Russia, including its isolation in different spheres which aims at weakening the state and ultimately stopping the war, and harms Ukrainian community.

Overall, the situation in Ukraine and international cooperation aimed to support Ukrainian scholars can be an opportunity to strengthen its academic capacity, international academic network, and engagement, to develop accordingly and become a more engaged participant in the global academic community. It could also enrich the European, including the Finnish, academic landscape. Thus, all the assistance provided to Ukraine now can form a basis for this future development. Ukrainians need help but they also need hope—meaning a clear perspective and a sense of being supported that is felt not only here and now, but also in the years to come.

⁷³ <https://www.uascience-reload.org/>

Above all, Ukraine needs military support. The sooner Ukraine banishes Russia from its land and wins the war, the better our prospects for its academic landscape, development, and international cooperation.