

In the 2023 edition, as well as in the previous ones since 1997, the surveys were conducted during the preceding fall (from Nov 23<sup>rd</sup> until Nov 30<sup>th</sup>) on a representative sample of the French population. The questionnaire remained the same with marginal additions and removals to guarantee stability among the data. Two changes implemented in 2020 were maintained: the sample size has been increased to 2000 (instead of 1000 the previous years) and the survey is now permanently conducted online (instead of in person) since 2020. Both changes improve the statististical accuracy and relevance of the data collected. All results are available on https://barometre.irsn.fr

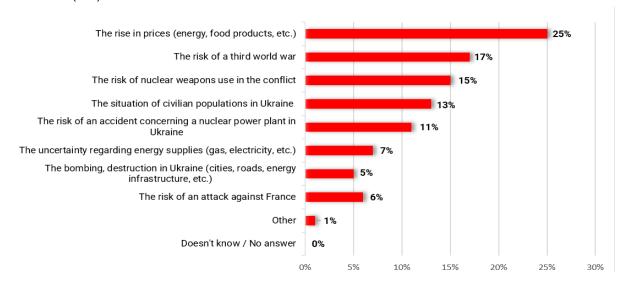
In 2022, **purchasing power**, newly introduced in the Barometer, appears as **the main concern** of the French, with 36 % of responses. It gets in front of climate imbalance (15 %, -7 points), global geopolitical instability (10 %, -1 point) and health (10 %) which is 12 points lower than in 2021.

Regarding the repercussions of the war in Ukraine, the main concerns of the French are **the rise in prices** (25%), the risk of a third world war (17%) and the risk of nuclear weapons use in the conflict (15%).

Among the main environmental concerns, climate imbalance (41%) remains in first place (41%) in front of "the disappearance of animal species" and "damage from natural disaster" which are tied (13%).

For the perception of disasters, nuclear power plants remain in 2022 the facilities most liable to provoke a serious accident in France (28 %) according to the French. They are followed by radioactive waste storage facilities and chemical plants which are tied at 19 %. In the aftermath of the Covid-19 pandemic, virus research laboratories reached a new peak of 17 % (+3 points). The Chernobyl accident is still the disaster perceived as the most frightening (39 %) but this year, it is followed by Covid-19 pandemic (20 %), relegating to the 3<sup>rd</sup> place the Fukushima accident (16 %).

Part 1-Question 1: In the current context of the war in Ukraine, which of the following issues do you find most concerning? November 2022 (in %)



This year, **the image of science and experts** has deteriorated slightly: 60 % of French people trust scientific institutions (-4 points) and 50 % have a good opinion about scientific expert (-4 points). The most expected qualities for a scientific expert are still, for the third year running, **competence** (30 %), honesty in their scientific approach (26 %) and independence (22 %).

The French re-affirm **their inclination towards having officials consult experts**. 61 % of them consider that political decision-makers do not take enough into account the opinions of scientific experts (+ 6 points).

The demand for a **wide access to information of quality** is reinstated in 2022. The French remain 89 % to think that it is necessary to make available to all comprehensible information on installation's risks and

they are 71 % to consider that making the reports of expert bodies public is a priority (-3 points). Nevertheless, 51 % of French don't wish to participate to public meetings about at-risk facilities. The feeling

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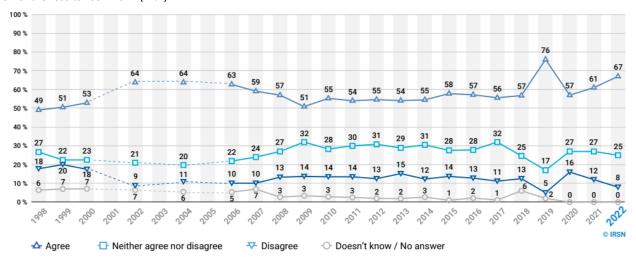
that other people are more competent than them (28 %) is the main obstacle to their participation, while the feeling of being directly concerned by the subject

(51 %) is the main lever. Next in order of importance for the French who would like to see their views heard before a public decision is taken, are "access to additional information" (50 %), "being sure of not being manipulated" (48 %), "to feel that your participation as the citizens matters as much as that of other

stakeholders" (48 %) and finally, "being able to exchange views with experts" (43 %). These results

seem to show that knowledge, transparency, and listening are essential for the French.

Part 2-Question 5-3: "Political decision-makers do not take scientific experts' opinions into account enough." Evolution of the results 1997-2022 (in %)



This year, the IRSN Barometer looked at citizen participation in the context of collaboration between researchers and citizens. Most French people see this as beneficial: 94% of them agree that "collaboration between researchers and citizens at all stages of the research process" could "further strengthen citizens' trust in researchers".

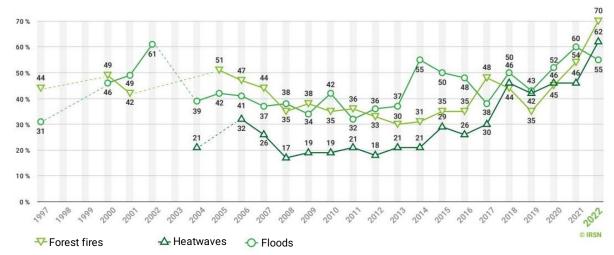
For the third year running, 92 % of the French public believes that the creation of a structure bringing together (scientific experts, elected representatives, industrialists, associations, and citizens) would be **useful** for "dealing with risk situations". Such a structure would make it possible to "bring out new points of view

and ideas" (for 92 % of French people), improve communication" between the various parties (92 %) and "better define the issue to be studied taking into account the issues of all stakeholders" (91 %).

Among the 32 areas featured in the Barometer in 2022, cancer (76 % of "high risk") and air pollution (68 %) remains among the risks perceived as the highest. Climate risks continue to rise, with forest fire (70 %, +16 points) and heatwaves (62 %, +16 points) at historically high levels. Regarding nuclear risks, radioactive waste (46 %) and nuclear power plants (39 %) remain at their lowest observed point for four years.

Part 3-Question 1: In each of the following areas, do you consider that the risks for the French population in general are...

Evolution of the results 1997-2022 (in %) – subtotal of the" high" ("high" and "very high") answers for "floods", "heatwaves" and "forest fires".



This year, once again, risks perceived "for yourself and the ones close to you" is systematically perceived as lower than "for the French". For oneself and their surroundings, cancer remains the highest risk (48 % of "high risk"). Drugs, once again, registers the largest gap (41 points) between risks "for the French" (64 %) and "for yourself and the ones close to you" (23 %).

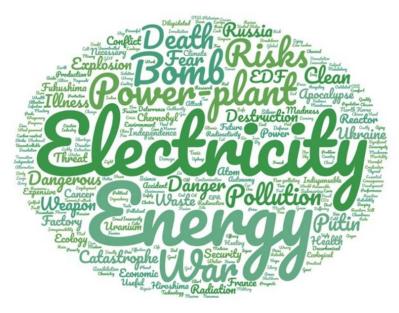
The introduction of the new question about the French's **level of information** reveals that they generally feel poorly informed about risk situations (56 %). Among the 32 areas featured in the Barometer, **smoking and traffic accidents**, which are tied (76 %), are the risks for which the French feel the best informed. On the other hand, indoor radon (18 %) and nanoparticles (19 %) are the risks about which the French feel the least informed.

The French's **trust** in authorities to protect them from at risk situations is still low (26 % of reply "yes" on average). The French's trust in authorities to protect them from at risk situations is the highest for **AIDS and medical radiographies** (both 40%), terrorism (37%) and traffic accidents (36%). The "distrust" of the French is the highest for pesticides (53%), followed by drugs and soil pollution (both 51%)

In 2022, French people were able to express in words what the term "nuclear" evokes for them, as was proposed in 2019. The analysis of these words' places in first the "civil" usage for nuclear and the energy source (36 %), then in second, the "military" usage nuclear (18 %).

Part 3-Question 6: What is the first thing that comes to mind when you hear the word "nuclear"? Please list the five words that come to mind.

November 2022 (in %) – Total of words mentioned.

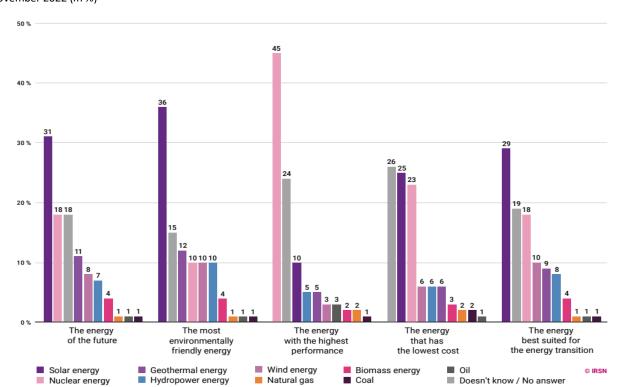


French's opinion on **nuclear energy has lightly improved**. One out of two French people (50 %, +6 points) is now **in favor of building new nuclear power plants**, while 20 % are against it (-9 points). Opinion on the construction of nuclear power plants is also improving. Indeed, 65 % of French people (+5 points) say that "the construction of nuclear power plants was a good thing", while 11 % (-5 points) disagree.

The main argument in favor of nuclear power remains energy independence (43 %) which, with an increase of 7 points, widens the gap with the low cost of electricity (22 %, stable). The "production of nuclear waste"

remains the leading argument against nuclear power (31 %, -4 points), but is now only 4 points (9 points in 2021) ahead of the risk of accidents in second place (27 %, +1 point).

Solar energy is the most positively perceived energy in general by the French (26%), closely followed by nuclear energy (23%). For the French, **solar energy** is **"the most environmentally friendly"** (36%) and "the energy of the future" (31%). **Nuclear power**, on the other hand, is **"the most efficient energy"** (45%), with solar power far behind at the second place with 10%.



Part 4- Question 6: In your opinion, which of the following energy sources best corresponds to ... November 2022 (in %)

Regarding **nuclear waste management**, most French people (68 %) continue to believe that the "most reasonable position" for resolving the problem of radioactive waste disposal is to "decide and implement the solution as quickly as possible". Only 6 % prefer to "leave the choice to future generations". Furthermore, 32 % believe that it is not "possible today to store nuclear waste safely" (-3 points) and 33 % think the opposite (+3 points).

The requirement for a **high level of nuclear safety** is confirmed by 84% of French people, who declare that "operators of nuclear sites must protect their facilities from all risks, even those deemed highly unlikely". On the other hand, the proportion of French people who feel that "all precautions are taken to ensure a very high level of safety in French nuclear power plants" remains stable (61 %). A new question, introduced in the Barometer, tells us that 69 % of French people believe in crisis energy that "the safety of nuclear facilities comes before energy production, even if this may lead to power cuts in the country".

On the issue of **extending the operating life of nuclear power plants**, two new questions, also introduced this year, tell us that 54% of French people think it's a good choice, against 23% who think the opposite. On the other hand, 37% believe that "extending the operating life of nuclear power plants will lead to accidents", against 24% who disagree.

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Finally, the **CNRS**, **ASN** and **IRSN** are once again considered to be both the most **competent** and the most **credible** in the field of nuclear industry and energy. Scientific bodies, experts and operators are perceived as competent and credible. Politicians, trade unions and journalists continue to be perceived as the least competent and credible players in the field.

Part 4- Question 6: In the field of nuclear industry and energy do you think the following actors and organizations are technically competent?

In the field of nuclear industry and energy, do you think the following actors and organizations are trustworthy sources of information?

November 2022 (in %)

