



RULES OF CONTEST

1. THEME: Tactile Displays for the Blind and Visually Impaired

1.1 Objectives pursued

People with visual impairment have serious difficulties in accessing digital information. This is a growing challenge as digital content becomes increasingly reliant on graphics which are particularly challenging to translate. Existing solutions are very costly and provide limited reading experience, usually in braille and not graphics.

The objectives of this inducement prize are:

- to address this significant gap in the ICT market with a tactile graphical display that makes visually impaired people benefit from digital technologies and improves the quality of their lives especially in the area of education and navigation and
- to stimulate broader European efforts in developing solutions for this societal need.

1.2 Expected results

The solution is an affordable, portable, internet-enabled device with a full-page tactile display for use by visually impaired and blind persons, which is able to convey digital information in both braille and tactile graphics form to improve access to and the understanding of digital information for blind and visually impaired people. The solution should benefit blind and visually impaired people (30 million in Europe), but also a wider range of people in need of multitasking solutions where, vision being engaged, the touch function of hands needs to be applied.

The device shall fulfill the following requirements:

It allows the user to correctly perceive and understand different information:

- braille on a **full-page tactile display** (multi-line, minimum 3 lines);
- graphics and charts;
- symbolic visual features and geometrical symbols;
- mathematical information (including functions);
- spatial information and simple maps.

As an additional asset, it would allow the user to navigate the internet.

It enables blind and people with visual impairments to meet their goals (understand and exchange different kind of information, navigate online) with effectiveness, efficiency and satisfaction in a user-friendly way.

The solution should allow users to use the display in a wide variety of applications, but at least in navigation. Participants are expected to collaborate with potential users to identify and work towards addressing a genuine and significant need or application for a full-page tactile display.

In the supporting documentation participants are expected to introduce navigation and any other specific applications, explain their rationale for deciding on those applications, highlight existing approaches and limitations, as well as the extent to which the technology could address this challenge.

2. PRIZE AMOUNT: 3 MILLION EUR

3. DEADLINES & ADMISSIBILITY:

Deadlines

Publication:	23 May 2017
Opening of the submission:	17 April 2018
Closing date for submission:	27 November 2018 at 17:00:00 CET ¹
Evaluation and solutions demonstration:	January 2019
Award Decision expected:	2 nd Quarter 2019

¹ Central European Time = Brussels local time.

Joint applications by a group of participants are admitted. In this case, the participants must appoint a 'lead participant' to represent them towards the Commission. The participants will be jointly responsible and must all fulfil and respect the conditions set out in these Rules of Contest.

Applications, including the technical specifications of the working prototype, must be submitted by the (lead) participant via the Participant Portal Submission Service, accessible via the call page.

Applications must be readable, accessible and printable. Incomplete applications may be considered inadmissible if essential elements are missing (see [General Annex B to the Main Work Programme](#)).

The page-limit for this prize application (Part B) is: 70 pages.

Sample application forms are available as reference documents on the [Participant Portal](#).

4. ELIGIBILITY

4.1. Eligibility criteria

The contest is open to any legal entity (including natural persons) or group of legal entities established in an EU Member State or in a [country associated to Horizon 2020](#).

Please note, however, that special rules apply for Israeli entities² and for Crimean legal persons and that entities from non-EU Member States that are covered by Council sanctions are not eligible to participate³ (see [General Annex C to the Main Work Programme](#)).

Please also be aware that participants that have already received an EU or Euratom prize cannot receive a second prize for the same activities.

² See [Commission Guidelines on the eligibility of Israeli entities and their activities in the territories occupied by Israel since June 1967 for grants, prizes and financial instruments funded by the EU from 2014 onwards](#) (OJ C 205 of 19.7.2013, pp. 9-11).

³ For the list of persons, groups and entities subject to EU financial sanctions, see http://eeas.europa.eu/cfsp/sanctions/consol-list_en.htm.

4.2. Exclusion criteria

Participants will be excluded if they (or one of them):

- are subject to an administrative sanction (i.e. exclusion)⁴
- are in one of the following situations⁵:
 - bankrupt, being wound up, having their affairs administered by the courts, entered **into an arrangement with creditors, suspended business activities or subject to any other similar proceedings or procedures under national law (including persons with unlimited liability for the participant's debts)**;
 - declared in breach of social security or tax obligations by a final judgment or decision (including persons with unlimited liability for the participant's debts);
 - found guilty of grave professional misconduct⁶ by a final judgment or decision (including persons having powers of representation, decision-making or control);
 - convicted of fraud, corruption, involvement in a criminal organization, **money laundering, terrorism-related crimes (including terrorism financing), child labour or human trafficking (including persons having powers of representation, decision-making or control)**;
 - shown significant deficiencies in complying with main obligations under a procurement contract, grant agreement or grant decision financed by the EU or Euratom budget (including persons having powers of representation, decision-making or control);
 - found guilty of irregularities within the meaning of Article 1(2) of Regulation No 2988/95 (including persons having powers of representation, decision-making or control);
 - have misrepresented information required for participating in the contest or fail to submit such information;
 - were involved in the preparation of the prize documents and this entails a distortion of competition.

5. AWARD CRITERIA

The prize will be awarded to the entry that best addresses the following cumulative criteria.:

Usability: The solution is **easy to read, understand, perceive and operate**. The solution is usable, allowing users to access digital information in an effective and timely way. It shows a performing refresh speed. The time it takes for the display to update and present new content should not represent a significant disruption for the user. The adequacy of the refresh speed may depend on the chosen application for the device, with some applications requiring a higher refresh speed than others. The solution allows, when it comes to the noise level, a quiet operation of the display and underlying mechanism in order to avoid discrimination when using the device in public spaces. It enables people with visual impairments to meet their goals with effectiveness, efficiency and satisfaction.

Affordability: The solution must prove **affordable**. The solution should be affordable both for manufacturers to produce and for consumers to buy and use.

Portability: The solution is **portable**. It can easily be carried around and can be used while traveling. Its size and weight are adequate; it allows working wirelessly and has a portable power source (battery).

Design: It has a **considerate design**, it is **reliable, robust and safe**; it takes into account the needs and preferences of visually impaired people. It is aesthetical; this includes practical details such as the format and location of navigation buttons, but also the look and feel of materials used and the overall appeal of the final device. Participants are expected to work together with blind and visually impaired users when designing their solution. It is easy to maintain, clean and repair. Participants are expected to provide an overview of the real-world setting in which the solution is expected to work, taking into account a variety of environmental conditions (e.g temperature

⁴ See Articles 131(4) and 106(1) Financial Regulation.

⁵ See Articles 138(2) and 106(1), 107 of the Regulation (EU, Euratom) No 966/2012 of the European Parliament and of the Council of 25 October 2012 on the financial rules applicable to the general budget of the Union and repealing Council Regulation (EC, Euratom) No 1605/2002 (OJ L 218, 26.10.2012, p.1).

⁶ Professional misconduct includes: violation of ethical standards of the profession, wrongful conduct with impact on professional credibility, false declarations/misrepresentation of information, participation in a cartel or other agreement distorting competition, violation of IPR, attempting to influence decision-making processes or obtain confidential information from public authorities to gain an advantage.

and humidity).

Interactivity: The solution allows the users to input content and to manipulate the displayed information (**interactivity**); the user can hence interact with the displayed information.

Interoperability: The solution should be **interoperable** with other ICT devices, including other assistive technologies available on the market. The solution should provide open APIs which could be used by third parties to build on the existing technology/framework.

Back Translation: The solution allows for the **back-translation** of braille or tactile graphics into text or images. It is able to display and **switch between text/graphics/braille** to enable cooperation between visually impaired and unimpaired people. This would be particularly relevant for solutions that aim to support collaborative work between people with and without visual impairments. The solution hence allows communicating in both directions, perceiving information and uploading information.

The solution has reached the Technology Readiness Level 7 (TRL 7 – system prototype demonstration in operational environment https://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-g-trl_en.pdf).

6. DOCUMENTS

The mandatory supporting documents are set out in the application form.

Participants may be asked at a later stage for further documents (for legal entity validation, bank account validation, ethics review, declaration of honour on exclusion grounds etc).

7. PROCEDURE

If there are more than 20 applications, there will be a pre-selection phase to select the best 20 applications to pass to jury review. Otherwise, all applications will pass directly to jury review.

The pre-selection panel and jury usually have a different composition, but jury members may participate in the pre-selection panel.

The jury evaluation is planned to take place between January and March 2019.

The pre-selection panel/jury will evaluate each application against the below award criteria and score them as follows (half marks are possible, decimals are not):

Criterion	Maximum points	Threshold
Usability	10	6
Affordability	10	6
Portability	10	6
Design	10	6
Interactivity	10	6
Interoperability	10	6
Back translation	10	6
Total	70	42

For applications with the same score, the pre-selection panel/jury will determine a priority order according to the following approach: the score for criterion **usability** will be given a weight of 2 and the score for affordability will be given a weight of 1.5. If several applications tie for the first rank, the prize will be equally divided and awarded to all of them.

The 5 best applications will be invited as finalists to submit a prototype and to demonstrate and test their solution.

On the basis of the evaluation by the jury, the Commission will decide on the award of the prize.

All participants will be informed on the outcome of their application in the 2nd quarter of 2019.

8. OTHER CONDITIONS

8.1. Payment arrangements

The prize money (3 million EUR) will be paid to the (lead) participant in one instalment after the award ceremony by bank transfer, provided all the requested documents have been submitted.

8.2. Publicity — Promoting the prize — Visibility of EU funding

8.2.1. Publicity by the winner(s)

Both finalist(s) and the winner(s) must promote the prize and its results, by providing targeted information to multiple audiences (including the media and the public) in a strategic and effective manner.

Unless the Commission requests or agrees otherwise or unless it is impossible, any communication activity related to the action (including in electronic form, via social media, etc.) must:

- (a) display the EU emblem and
- (b) include the following text:

“This action was finalist for / winner of the "Tactile Display" prize from the European Union's Horizon 2020 research and innovation programme”.

When displayed together with another logo, the EU emblem must have appropriate prominence.

For the purposes of their obligations, the finalist(s) and the winner(s) may use the EU emblem without first obtaining approval from the Commission

This does not, however, give it the right to exclusive use.

Moreover, they may not appropriate the EU emblem or any similar trademark or logo, either by registration or by any other means.

8.2.2. Publicity by the Commission

The Commission may use, for its communication and publicising activities, information relating to the action, documents notably summaries for publication as well as any other material, such as pictures or audio-visual material that it receives from the participants (including in electronic form).

The Commission will publish the name of both the finalist(s) and the winner(s), their origin, the amount of the prize and its nature and purpose — unless they have requested to waive this publication (because disclosure risks threatening their security and safety or harm their commercial interest).

The winner(s) of the contest will be publicly announced in a public award ceremony.

Photos and videos taken by the Commission either in preparation of or during the award ceremony are the sole property of the Commission.

8.3. Dissemination and exploitation of results

The winner(s) must comply with the obligations set out in Title III of the Horizon 2020 Rules for Participation Regulation No 1290/2013⁷

For more information and best practice, see Articles 23a-31 of the [H2020 AGA — Annotated grant agreement](#).

8.4. Processing of personal data

8.4.1. Processing of personal data by the Commission

Any personal data will be processed by the Commission under Regulation No 45/2001⁸ and in accordance with the

⁷ Regulation (EU) No 1290/2013 of the European Parliament and of the Council of 11 December 2013 laying down the rules for participation and dissemination in “Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020)” (OJ L 347, 20.12.2013 p.81).

⁸ Regulation (EC) No 45/2001 of the European Parliament and of the Council of 18 December 2000 on the protection of individuals with regard to the processing of personal data by the Community institutions and bodies and on the free movement of such data (OJ L 8, 12.01.2001, p. 1).

[Participant Portal privacy notice\(s\)](#).

All finalist(s) and winner(s) consent that the Commission publishes the following information:

- name
- Member State of origin (address or NUTS 2 region)
- their activities in relation to the award of the prize (via the summary for publication they provided)
- prize amount

in whatever form and medium.

8.4.2. Processing of personal data by the participants

The participants must process personal data in compliance with applicable EU and national law on data protection (including authorisations or notification requirements, if any).

8.5. Ethics

The activities must be carried out in compliance with:

- (a) ethical principles (including the highest standards of research integrity) and
- (b) applicable international, EU and national law.

No prize will be awarded for activities carried out outside the EU, if they are prohibited in all Member States.

The participants must ensure that the activities have an exclusive focus on civil applications.

The participants must ensure that the activities do not:

- (a) aim at human cloning for reproductive purposes
- (b) intend to modify the genetic heritage of human beings which could make such changes heritable (with the exception of research relating to cancer treatment of the gonads) or
- (c) intend to create human embryos solely for the purpose of research or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer.

Research activities involving human embryonic stem cells (hESC) are moreover subject to the conditions set out in the [Statement of the Commission related to research activities involving human embryonic stem cells](#).

The participants must respect the highest standards of research integrity — as set out, for instance, in the European Code of Conduct for Research Integrity⁹.

For more information and best practice, see the [Participant Portal Online Manual](#), the [Guidance — How to complete your ethics self assessment](#) and the [Guidance note — Research focusing exclusively on civil applications](#).

8.6. Security

The activities must be carried out in compliance with Commission Decision [2015/444](#), i.e. security-sensitive information must be **EU-classified**, if its unauthorised disclosure could adversely impact the interests of the EU or of one (or more) of its Member States. Applications that are too security-sensitive cannot be awarded a prize.

For more information and best practice, see the [Guidance — Guidelines for the classification of information in research projects](#), the [Guidance — Guidelines for the handling of classified information in EU research projects](#), the [Guidance note — Potential misuse of research results](#) and the [Guidance note — Research involving dual use items](#).

8.7. Conflict of interests

⁹ European Code of Conduct for Research Integrity of ALLEA (All European Academies) and ESF (European Science Foundation) of March 2017

http://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics_code-of-conduct_en.pdf.

The participants must take all measures to prevent any situation where the impartial and objective award of the prize is compromised for reasons involving economic interest, political or national affinity, family or emotional ties or any other shared interest ('conflict of interests').

They must inform the Commission without delay of any situation constituting or likely to lead to a conflict of interests and immediately take all the necessary steps to rectify this situation.

The Commission may verify that the measures taken are appropriate and may require additional measures to be taken by a specified deadline.

8.8. Liability for damages

The Commission cannot be held liable for any damage caused to the participants or to third parties as a consequence of the prize, including for gross negligence.

The Commission cannot be held liable for any damage caused by any of the participants in the context of the prize.

8.9. Checks, audits and investigations

The Commission, the European Anti-Fraud Office (OLAF) and the European Court of Auditors may carry out checks, audits and investigations in relation to the prize.

8.10. Withdrawal of the prize — Recovery of undue amounts

The Commission may withdraw the prize after its award and recover all payments made, if it finds out that:

- (a) false information, fraud or corruption was used to obtain it
- (b) a winner was not eligible or should have been excluded
- (c) a winner is in serious breach of its obligations under these Rules of Contest.

8.11. Administrative sanctions

If a participant has committed irregularities or fraud or has made false declarations, the Commission may also:

- (a) exclude the participant from all future contracts, grants and contests financed from the EU or Euratom budget for a maximum of five years (or 10 years in case of repetition) and/or
- (b) impose a financial penalty between 2% and 10% of the value of the prize (or between 4% and 20% in case of repetition).

8.12. Cancellation of the contest

The Commission may cancel the contest or decide not to award the prize — without any obligation to compensate participants —, if:

- (a) no applications are received
- (b) the jury does not find a winner
- (c) the winner is not eligible or must be excluded or
- (d) the objective of the contest has already been achieved.]

8.13. Complaints

Complaints against decisions negatively affecting the rights of a participant or winner can be brought before the General Court — or, on appeal, the Court of Justice of the European Union — under Article 263 of the Treaty on the Functioning of the EU (TFEU).

9. CONTACT

For more information, please refer to the following [link](#):

In case of questions, please contact EC-TACTILE-DISPLAY-PRIZE@EC.EUROPA.EU