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A DETAILED DESCRIPTION OF THE SUBJECT OF THE CONTRACT

EXHIBITION

'Paths of growing up'

PART I – GENERAL REQUIREMENTS

Basic information on the intended use and location of the exhibition in the exhibition area and description of the object of the contract:

The Innovation Centre Mill of Knowledge (CNMW) is a self-government cultural institution founded by the commune of the city of Toruń. It is located in the historical part of the so-called Richter Mills, dating back to the 1940s.   As part of the project titled: *Centres of Innovative Education (the so-called Mini-Copernicuses) "Adaptation of buildings located in W. Łokietka Street in Toruń for the purposes of the Innovation Centre Mill of Knowledge, a cultural institution that promotes innovative education in the Cuiavian-Pomeranian region"* a three-storey building in 79 Tadeusza Kościuszki and 1 Władysława Łokietka streets in Toruń is being readapted. Part of its space is allotted for the purposes of the exhibition that is the object of the contract. Under the object of the contract the Contractor will design, make the exhibition 'Paths of growing up' consisting of 31 exhibits together and appropriately designed space and deliver it to the Ordering Party's seat. The exhibition will be located on the ground floor and the first floor of an adapted building in four rooms with the total area of 458.32 m^2.

1   Basic information

1.1   The audience of the exhibition

The exhibition is addressed to individual persons and organised groups of:
- adolescent youths (aged 13 and more);
- adults;

Youths up to the age of 13 will stay on the premises of Innovation Centre Mill of Knowledge under adult supervision. Organised groups will stay on the premises of Innovation Centre Mill of Knowledge only with their group leaders.

1.2   Characteristics of the exhibition

Theoretical basis for the planned exhibition/display outlined by cultural anthropology is provided by **the concept of enculturation**. The concept assumes that any person in the period of childhood and youth is exposed to a variety of experiences as a result of which they adopt cultural models, norms and values that prevail in a given society and become its integral and fully-fledged member. Enculturation is comprised of three types of experiences: observation of how the elders in a community behave, explicit instructions given by the elders, independent attempts at imitating and experimenting within acquired cultural models. It is a complex process that is not made aware of to a sufficient extent, which in the modern world is subjected to even further complexity due to the fact that in the conditions of cultural pluralism and globalisation we are facing the co-existence of various, often contradictory, norms and values. Given that, the end process of enculturation, which coincides with the **period of adolescence,** is related to many tensions and conflicts. In this period young people begin to realise and often call into question cultural factors that had shaped them, and on the other hand they want to, and in fact they have to, make their own choices as far as their own manner of participating in social and cultural life are concerned.

Adolescent youths discover their interests and predispositions, and choose their educational paths. Whether or not a young person in the future will not be afraid to choose apparently more difficult but also more satisfying paths of development, and opt for non-materialistic values, such as education, or focus largely on satisfying materialistic needs, largely depends on the so-called **cultural and science capital**, created in the family, at school or in the educational and cultural environment. Not every person has an equal start in that respect, not every family provides enough support for a young person, both on material grounds as well as on account of environmental conditions or negligence. Therefore, it is essential that spaces conducive to multidimensional development of the youth in their environment are created, e.g. by establishing new cultural institutions or extending the existing cultural offer with new forms and areas of activity. The planned exhibition will play that role. It will familiarise the youths with the phenomena and aspects of social and cultural life which play an essential role in the period of adolescence to which the last and very important phase of enculturation is linked. The exhibition will provide an opportunity to understand and accept physiological, mental, intellectual and social processes related to the period of adolescence, and particularly raising awareness of how important the role of cultural models, norms and values is, and how the acquisition and shaping of those values, norms and models is related to biological

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aspects of development of human body. A basis for the formulation of such an approach is the view that **a human being is a bio-cultural creature**, which is a currently valid notion in social sciences. That means that the evolution of human kind has led to the point where having a culture is paradoxically one of the constituents of human 'nature', and consequently the belief that the existence of human kind beyond culture is not possible.

The educational dimension will be an important aspect of the exhibition. According to the adopted assumptions, during the period of adolescence, ensuring proper conditions for physical development and ensuring proper conditions for an effective conclusion of the enculturation process are treated equally. However, nowadays imposing one set of norms and values on the young generation cannot guarantee the effectiveness mentioned above. It is essential to prepare the youth to live in a world of varied cultural models and, at the same time, prepare them to make wise choices and understand and respect the choices of others. The exhibits demonstrated as part of the exhibition, as well as the exploration paths will raise awareness of the fact that participation in culture is now all about making choices, and at the same time they will in their own manner provide grounds for cultural exercises and experiments in safe laboratory conditions.

At the exhibition the following issues will also be presented: primary socialisation, secondary socialisation, reference group, peer groups, counterculture and subcultures. In order to satisfy the needs with respect to cultural and social development, exhibits to be prepared will allow **expression of oneself through one's own creativity** or **dialogue with other visitors,** as well as **co-creation of the exhibition's space through a creative alteration of the appearance and significance of the exhibits**. The creation of such a space not only requires a careful choice of exhibits, but also ensuring the artistic dimension of the exhibition. It will astound with its decorations, artistic installations and arrangements, creating a unique space that stimulates young people's imagination, also in aesthetic terms. A skilful narrative will emphasise the **role of the family** in the development of a young person, as well as **the role of social environment and cultural tradition** in shaping their attitudes and life choices.

The exhibition will be permanent and it will be installed in a building that has been adapted for educational and cultural purposes on the ground floor and the first floor. The exhibition will be arranged in the following four spaces visible on the plans of each storey, set out as appendix no 1:
- room W. 0.01 with the area of 108.61 m^2 on the ground floor,
- room W. 1.01 with the area of 132.18 m^2 on the first floor,
- room W. 1.02 with the area of 102.10 m^2 on the first floor,
- room W. 1.03 with the area of 115.43 m^2 on the first floor.

Rooms W. 1.02 and W. 1.03 are connected, but between them a movable, sliding panel wall has been placed. Exhibition structure (arrangement elements, stations) should enable a free use of the movable wall.

The exhibition will be comprised of 31 stations, divided into three thematic paths. They will include exhibits shared by two or three paths and also exhibits belonging to only one of them. Visitors will have an opportunity to use the stations both individually and in groups by choosing a path or exploring

the exhibition in a random manner. Most stations will be equipped with multimedia and new technologies that will enable a **multi-storey exploration**. In a virtual dimension it will be made possible through taking pictures, their optional posting at the exhibition or sending them to oneself or others through e-mail. In a real dimension, however, through the possibility of choosing one of the three alternative exploration scenarios - or paths: **a social and cultural path, maturing path and emotions path.** Visitors will have a possibility to choose one or many of them, and exploring freely, according to their interests or inclinations. Owing to the solutions mentioned above, **a high degree of individualisation and personalisation of exploring** will be achieved.

I.   A social and cultural path

Stations that constitute this path of exploration will introduce the visitors to the context of issues related to the process of enculturation - a social and cultural growing up of an individual. Growing up will be demonstrated as a process of building self-awareness through understanding social models of conduct related to gender, understanding the role of building self-esteem and uniqueness, and also searching for ways to express one's personality through creativity and experiencing art. Attention will be given to the phenomena related to experimenting with their own bodies, or symbolism of rites of passage from childhood to adulthood, which interest young people. The role of the immediate environment of a young person, their family during the process of growing up will be highlighted.

II.   An emotions path

Stations affiliated with this path will enable young people to learn to recognise their emotions, and properly name, vent and express those emotions. This will help them to accept extreme emotions of the adolescence period. Instead of focusing on 'standard' growing up problems, a young person will gain an opportunity to devote their attention to cultural or intellectual activity, or experimenting with art.

III.   A maturing path

Stations for this path will satisfy natural curiosity of the adolescence period related to a biological sphere of human life in a gentle manner. Thanks to humorous exhibits it will allow one to keep some distance from the issues related to puberty and view them from the side.
Versatile themes of the stations, independent of thematic grouping intended for individual or group exploration, will provide subject matter for tutor period or family life education, both suggested by the Centre, as well as lessons run by tutors of school groups.

1.3 Elements of the exhibition
On account of the character and purpose of the exhibition, stations will be built in the original arrangement of the space, which will determine the artistic and aesthetic dimension of the exhibition. The definition of stations provided below and what the Ordering Party understands as the arrangement of the exhibition is for information purposes only, as the elements of arrangement will often constitute station elements. The final design concept of the exhibition will be

suggested by the Contractor, and its quality, integrity with the exhibition's theme and the manner of blending the stations with the arrangement will be evaluated in the course of selecting the most advantageous offer.

For the purpose of an efficient management of the process of creating the exhibition as well as its subsequent operation in the warranty and post-warranty period, the exhibition will be equipped in a complex system of managing exhibition elements supplied by the Contractor.

1.3.1 Stations

The exhibition will include interactive multimedia stations and hands-on stations with exhibition messages.

1.3.1.1 Hands-on stations

The Ordering Party provides for some of the stations to be hands-on stations which, in addition to an intellectual contribution will require a physical or sensory involvement to achieve a desired effect. The main purpose of these stations is to stimulate the visitors' thinking and creative processes. Some of the stations will be used for fun purposes and venting emotions. Some of the hands-on stations may require an application of additional fixtures and fittings for the sake of the visitors' safety.

1.3.1.2 Multimedia stations

The Ordering Party provides for multimedia stations to be used for the presentation of selected issues. Stations of this kind will chiefly include multimedia devices.

1.3.1.3 Types of interactivity in the stations

All the stations of the exhibition will be interactive. Stations which meet this requirement will be considered as such if they represent at least one of the following types of interactivity:
- Manual: station requiring the work of hands;
- Motor: station requiring the movement of the whole body and motor coordination;
- Sensory: station requiring the use of senses (e.g. sight, touch, smell, etc.);
- Intellectual: for its proper operation the station uses the visitors' knowledge and requires intellectual activity.

1.3.2 Exhibition messages

Each path and each station must be accompanied by an exhibition message represented by verbal, graphic or multimedia instructions. Exhibition messages concerning the paths should introduce the visitor to the theme of the path with the use of appropriate narrative.

Exhibition messages regarding the stations should facilitate the use of the stations. A message, depending on the type and theme of the station may be blended in the station or stand-alone. The Contractor should suggest a system of graphic recognition of each path and marking the affiliation of each station. As some of the stations are affiliated with more than one path the manner of identifying should be simple and universal, e.g. by means of a colour code or/and a graphic marker.

The message should be prepared in Polish and English, as well as adapted for the blind in Braille system and should include:

a. station name,
b. information on the affiliation of the station with a given path or paths
c. step by step station manual for the visitor/step by step task instructions,
d. in the case of verbal and graphic messages additional information and interesting facts that constitute an explanation for the observed phenomena/behaviour (depending on the theme of the station).

In the case of multimedia stations a multimedia message containing information shown above under clauses a, b and c should be part of a multimedia presentation.

The content of an exhibition message has to be understandable and must encourage to use the station with regard to both the information included and the volume/length of the text. Furthermore, the messages must be prepared in such a way as to enable the Ordering Party to modify the content at a later time (if there is such a need). On account of the subject matter, it will not be possible for all stations to be used by the blind. In such situations the Ordering Party requires that the Contractor prepares short audio programmes in Polish and English that will allow the blind to get acquainted with the station's theme.

Under the inscription representing the name of the exhibition (under clause 1.3.3) or in its proximity, an information panel concerning the exhibition, its purpose and contents should be placed. The information design will be prepared by the Ordering Party by agreement with the Contractor, after establishing the final content of the stations, their names and functionalities.

1.3.3 The design concept and the arrangement of the exhibition space

The design concept of the stations and arrangement elements as well as the arrangement plan of display rooms should be suggested by an interior designer and a fine artist and account for, where applicable, current trends, as wells as tastes and preferences of young people as regards interior design. On account of the nature of the content presented at the exhibition and limited surface of each display room, the design should merge with the exhibits into a coherent whole, provide a background for the exhibits and serve as a complement. It should also be conducive to interaction with the stations through attracting the

visitors' attention. The design should also appeal to aesthetic experience. Design and/or the graphical style should account for the affiliation of the stations with particular educational paths. The Ordering Party admits the use of other suggestions of design concepts and arrangement plans which are of value from the Contractor's point of view.

An inscription with the name of the exhibition, duly designed and coherent with the approved design concept should be located in a visible spot near the entrance to the display space, and highlighted through the use of lighting, illumination, or in any other way suggested by the Contractor.

1.3.4 Contents of the exhibition

The contents of the exhibition will be prepared by a team of the Contractor's specialists, who will be responsible for their creation as well as for conducting literature research, which is required for the completion of this task. Content preparation will be conducted in close cooperation and under supervision of the Contracting Party. The exhibition's contents will include texts, pictures, films, animations, multimedia presentations, programmes, games, quizzes, etc. The contents will be made by the Contractor for the purposes of the Exhibition or, in the event when it will be necessary to use already existing pictures, films, programmes, text fragments, the Contractor will ensure that the rights to unlimited use of the contents are purchased and transferred to the Ordering Party. The exhibition will be made available to the visitors for a charge, therefore the purchased licences will have to account for charging for the presentation of the contents that relate to them.

1.4 Technical description of the building

The facility is composed of two existing buildings situated at an estate, at the junction of Władysława Łokietka and Kościuszki streets, where the continuity of land-use function of the Ordering Party - Centre of Innovation Mill of Knowledge - is planned. The total area of the building amounts to 1 317.24 m^2. The building is a four-storey structure with three storeys above the ground. The entry to the building will be available from the ground level in front of the building. Vertical transportation will be effected conducted through a staircase and a lift with the dimensions to be seen on view plans and sections constituting appendix no 1. For the implementation of the function assumed in the design, zone illumination of display rooms has been designed, with the possibility of controlling illumination intensity and the adaptation of accent lighting. Freedom to create display spaces is increased by floor boxes – in-built floor compartments with power and structural network sockets. Access to exhibition rooms will be ensured through turnstiles. Moreover, the following systems will be installed at the facility: access control, installation of the acoustic alarm system, structural network, burglary and assault alarm system, installation of mechanical ventilation and air-conditioning, installation of CCTV, installation of fire alarm system, building automation system. Display areas cover the rooms located on the ground floor – W 0.01 - 108.61m^2 – and the first floor – W 1.01- 132.18m^2, W 1.02 - 102.10m^2 and W 1.03 - 115.43m^2. The Ordering Party hereby announces that it is in possession of complete design documentation in its offices, which includes detailed information about the building. At the same time the Ordering Party announces that modifications may occur at the construction stage.

2 Description of the object of contract

2.1   Designs

2.1.1   Providing the Ordering Party with access to an application allowing the management of the Exhibition design and a communication between the Contractor and the Ordering Party.

2.1.2   Creating graphic and working designs of the particular elements of the exhibition and delivering them to the Ordering Party, in particular:

2.1.2.1 Creating graphic and working designs of stations and delivering them to the Ordering Party,

2.1.2.2 Creating graphic and working designs of exhibition arrangement elements, including meeting spaces and delivering them to the Ordering Party.

2.1.3   Creating a graphic design of the arrangement of the whole exhibition space and delivering it to the Ordering Party.

2.1.4   Creating and delivering to the Ordering Party a preliminary graphic design of exhibition messages including: the name of the station, station's affiliation with a given path or paths, station manual for visitors/step by step task instruction, as well as additional information and interesting facts related to the presented issues.

2.1.5   Creating and delivering to the Ordering Party a preliminary graphic design and preliminary scripts and storyboards for multimedia applications for each station.

2.1.6   Creating and delivering updated visualisations of the stations together with the exhibition messages and of the whole exhibition, presenting the exhibition from each side, during the day and at night, on the basis of designs mentioned in clauses 2.1.1, 2.1.2, 2.1.3 and 2.1.4, after their final acceptance by the Ordering Party in electronic form, with the parameters that enable creation of printouts sized 0.7m x 0.5m, without deterioration in their quality.

2.1.7   Delivering detailed information on the exhibition management system to the Ordering Party.

2.1.8   Handing over to the Ordering Party a cost estimate including the prices of exhibition's elements mentioned in clause 1.4. and all the other costs necessary to execute the object of the contract (after the final acceptance of the designs by the Ordering Party).

2.1.9   Providing the Ordering Party with the information concerning the exhibition's yearly operating cost.

2.1.10 Handing over to the Ordering Party a list of all spare elements meant for all stations, together with their number.

2.2   Manufacture, delivery and installation of the exhibition's elements

2.2.1   Creating exhibition messages for all the stations, which consist of information boards blended in with stations, infographics placed on the stations, in such places that do not cause interference with functionality, or elements of the stations' multimedia applications, including:

   a.   the name of the station in Polish and English,

   b.   information on the affiliation of the station with a given path or paths

   c.   instructions for the visitor to conduct an experiment (step by step) in English and Polish,

d. explanation of the observed phenomenon/behaviour (depending on the station's theme) in Polish and English.

2.2.2 Creating applications intended for multimedia stations, including the content prepared by the Contractor under the supervision of the Ordering Party. Each station ought to include in particular:

a. a list of all applications used at the station together with the accompanying presentations and other means of multimedia messaging used together with their script and a specification of their content,

b. graphic designs of the applications, presentations, animations and other means of visual message,

c. text content used in the applications,

d. purchased rights to use at the exhibition all the materials that have not been made by the Contractor for the purposes of the stations (i.e. photos, films, programmes, etc.).

2.2.3 Providing the Ordering Party with the content of exhibition messages, texts, photos, graphics, applications, which contain the elements required in clauses 2.2.1 and 2.2.2, in order to obtain acceptance for them and make necessary changes on the basis of the Ordering Party's observations.

2.2.4 Manufacturing of all the exhibition's elements together with an application for a remote management of the exhibition according to the designs accepted by the Ordering Party and mentioned in clause 2.1.

2.2.5 Testing of all the exhibition's elements at the Contractor's seat in the presence of the Ordering Party's representatives and making necessary changes on the basis of the test results.

2.2.6 Delivering to the Ordering Party's seat all the exhibition elements, which have been tested and approved by the Ordering Party, i.e. exhibition messages, stations, elements of spatial arrangement and contents of the exhibition.

2.2.7 Providing the complete software for the multimedia stations, together with texts, animations, films, sound files, games and other multimedia software used in them, which have been approved by the Ordering Party, in a form that enables the change of software, as well as adding new films and animations. In particular, the Contractor should deliver:

a. a list of all applications used at the stations together with presentations and other means of multimedia messaging used together with the specification of their content,

b. graphic designs of the applications, presentations, animations and other means of visual message,

c. all used texts, pictures, films, programmes, animations, games, quizzes, etc. in electronic form on a CD or DVD,

d. all computer programmes created for the purposes of the exhibition in electronic form on a CD or DVD,

e. all the other elements of the presentations created with the use of means of multimedia messaging in electronic form on a CD or DVD.

2.2.8 Installation, start-up and integration of all the exhibition's elements in accordance with the designs referred to in clause 2.1.

2.2.9 Testing all the elements of the exhibition (on selected groups of target audience) and removing any faults arising from these tests.

2.3 Delivery of spare parts, as-built documentation and training of the staff

2.3.1 Delivery of spare parts which can be used for repairs (referred to in clause 2.3.4.) made during the warranty period by trained employees of the Ordering Party.

2.3.2 Delivery of all consumables for the particular elements of the Exhibition for the first six months of its presentation, beginning from the day on which it would be received by the Ordering Party, the Innovation Centre Mill of Knowledge.

2.3.3 Creating documentation of the Exhibition and delivering it to Ordering Party. The documentation should include at least the following information (as-built documentation):

   a. a list of exhibition's elements (messages, stations, elements of the design, contents),

   b. station names and placement of the stations within the exhibition's space,

   c. purposes of the stations,

   d. graphic and working design of the Exhibition and its particular elements

   e. details of how particular stations function,

   f. a detailed description of the phenomena/themes presented at the stations

   g. number of people who can use one station at the same time,

   h. detailed information concerning the media and consumables necessary for the proper functioning of the stations,

   i. a list of repairs which can be made during the warranty period without prejudice to the warranty conditions by the employees of the Innovation Centre Mill of Knowledge, trained by the Ordering Party.

2.3.5 Creating an operating manual, rules of control, service and maintenance of particular elements of the exhibition in Polish, in paper and electronic form, as well as warranty cards, and delivering them to the Ordering Party.

2.3.6 Handing over the results of tests referred to in clause 2.2.5 to the Ordering Party.

2.3.7 Transfer of software licence, including an application for a remote management of the exhibition, and copyrights to the photos, graphics, drawings, texts, films and animations as well as other software and creations used in all the elements of the exhibition, to the Ordering Party.

2.3.8 Handing over a declaration of the object of contract's conformity with the applicable regulations and standards to the Ordering Party; the elements of the Exhibition and of the design have to meet the European safety standards, whereas all the materials and devices used for their manufacture must have proper declarations of conformity shown by the CE marking, or declarations which are equivalent to them.

2.3.9 Transfer of copyrights to the object of contract to the Ordering Party under the terms and conditions defined in the contract.

2.3.10 Training of the Innovation Centre Mill of Knowledge employees as regards the management, inspection, maintenance, servicing of the exhibition to the extent enabling the workers to make repairs (referred to in clause 2.3.4), also during the warranty period. A training for a group of maximum 20

people will be conducted at the Ordering Party's seat, in Polish or English. The duration of the training will be suggested by the Ordering Party in the schedule.

2.4   A list of stations and their affiliation with theme paths and the suggested placement

The exhibition will be comprised of 31 stations placed in comprehensively designed display rooms. The stations will be part of three thematic paths. They will include stations shared by two or three paths and also stations belonging to only one of them. In the table, station names were put in bold type. Beside them, apart from standard exhibition messages, also messages for each path will be placed.

	Station	Affiliation with the paths	Suggested placement	Suggested location of a meeting venue
E.01	**Human theatre**	Emotions	W 0.01	
E.02	Capsules of emotions	Emotions	W 0.01	
E.03	Written on the face	Emotions	W 0.01	**S.1**
E.04	Like in a mirror	Emotions	W 0.01	
E.05	Emoticons	Emotions	W 0.01	
E.06	Power of emotions	Emotions	W 1.01	
E.07	Sumo	Emotions	W 1.01	
E.08	Pulse of emotions	Emotions	W 1.01	
E.09	Charming voice	emotions, social and cultural	W 1.01	
E.10	Pictures of growing up	emotions, social and cultural, maturing	W 1.02	
E.11	**Family portrait**	social and cultural, maturing	W 1.02	
E.12	Bench	social and cultural	W 1.02	
E.13	I'm special	social and cultural	W 1.01	
E.14	Talk to me	social and cultural	W 1.01	
E.15	Online	social and cultural	W 1.01	
E.16	Cultural photo booth	social and cultural	W 1.01	
E.17	Master	social and cultural	W 1.02	
E.18	Music festival	social and cultural	W 1.02	**S.2**
E.19	Pin up or Swag?	social and cultural	W 1.02	
E.20	Taboo	social and cultural	W 1.02	

E.21	Clinic	social and cultural, maturing	W 1.02	
E.22	Maturity exam	social and cultural, maturing	W 1.02	
E.23	**What's up?**	maturing, emotions	W 1.03	
E.24	Pimple in a close-up	Maturing	W 1.03	
E.25	Funny voice	Maturing	W 1.03	
E.26	The hormones!	Maturing	W 1.03	
E.27	Healthy body	Maturing	W 1.03	
E.28	Goggles	Maturing	W 1.03	
E.29	Everything you're afraid to ask...	Maturing	W 1.03	
E.30	Belly?	Maturing	W 1.03	
E.31	Child	maturing, social and cultural, emotions	W 1.03	**S.3**

3.   Requirements of the Ordering Party concerning the subject matter of the contract

3.1   Requirements concerning the arrangement of the exhibition

3.1.1   Exhibition space should be designed in a comprehensive manner, therefore all the available area should be used for the installation of the stations: walls, floors and ceilings, whereas in the remaining places appropriate elements of the design should be placed. They should include wall graphics, paintings, multimedia projections displayed from appropriately placed projectors, as well as structure elements in the form of thin partitioning walls, furniture, lamps, light strips, etc. Elements of the design must constitute a background and complementation for the stations and form one coherent whole with them. On account of a limited display room area one should consider designing graphics and wall paintings creating an effect of adding to space volume (the so-called 3D effect). For example, when designing the 'Human theatre' station, which will take the form of a labyrinth of illuminated human face masks that express different emotions, walls and small walls around the station may be painted, or place mirrors on them, so that the effect of infinity is created. The final selection of the means of artistic selection will be up to the Contractor, who will employ an interior design specialist as well as a fine artist for that purpose.

3.1.2   Three meeting places should be designed within the exhibition area (hereinafter referred to as S.1, S.2, S.3), which will provide room for holding short discussions with a group of youths or summarising the classes held at the exhibition. The location of these places has been initially suggested by the Ordering Party further in this document. The Ordering Party admits the possibility of placing them next to other stations, as long as the entire arrangement will benefit from it. However, the meeting places should be arranged in such a way as to place the first of them within the ground floor area, in room W 0.01, whereas the remaining ones within the area of the first floor (W 1.01 or W 1.02 and W 1.03).

3.1.3   The space of the exhibition should be arranged in a manner that is consistent with the guidelines of the Minister of Infrastructure and Development

regarding the implementation of the principle of equal opportunities and non-discrimination, including accessibility for people with disabilities and the principle of equal opportunities for women and men with regard to EU funds for 2014-2020, as well as the document Implementation of the principle of equal opportunities and non-discrimination, including accessibility for people with disabilities. A guidebook for project implementers and institutions of the implementation system for European funds 2014-2020. Issued by the Ministry of Development and available at: https://www.pois.gov.pl/media/23675/publikacja_wersja_kontrastowa_3.pdf, including in particular taking into account the concept of universal design.

3.2   Requirements concerning exhibition contents

3.2.1   The content presented at the exhibition must be prepared by the Contractor's experts specialising in social sciences, i.e. cultural anthropology, sociology, neuroscience and natural science, and reflect the state of current knowledge. A technical coordinator of the project should be appointed by the Contractor at the tender submission stage to coordinate the works of a team of specialists. At the stage of preparing the designs, the Contractor must provide the Ordering Party with a list of source literature which will constitute a base for the design projects, as well as a list of specialists employed for their preparation. The process of content preparation must be conducted in close cooperation of the Ordering Party. The Ordering Party reserves the right to demand the change of content recommended for presentation from the Contractor, in particular as regards source texts, pictures, films, reproductions that illustrate the discussed issues. The contents presented at the exhibition's stations must include texts, pictures, films, multimedia presentations, multimedia presentations thematically linked to the subject of the exhibition. They must present scientific and educational texts and they must not contain explanations of phenomena that are in contradiction to scientific knowledge. Fairy tale, quasi-scientific content or content violating moral norms cannot be introduced to the content of the exhibition. The manner of graphical presentation of the entire content must be coherent with the adopted design concept.

3.2.2   Content selection at the stations as well as the manner of narration must be adjusted to the audience aged 13 and more, i.e. must be accessible, but should not leave out the elements of knowledge presented with the use of professional terminology typical of a given field, or source literature. The whole content must be presented in a readable and organised way.

3.2.3   All stations (also hands-on stations) should be provided with exhibition messages in the form of verbal, graphic or multimedia instruction. The exhibition messages have to be placed in such a way as to be visible to the visitors. The Ordering Party allows for a possibility of changing the content of the messages in the later period of its activity, which is why they have to be made in such a way so that their replacement or modification does not interfere with the stations. The Ordering Party demands that the Contractor submits exhibition messages also in electronic form which will enable future modifications of their content by means of universal graphic software or a CMS content editor (through an exhibition management system delivered by the Contractor).

3.2.4   Exhibition messages must be available for the visitors in two languages: Polish and English, and also in Braille system (in the case of printed messages)

or audio programmes (in the case of exhibits that constitute part of multimedia applications).

3.2.5   Stations which assume visual interaction should be adopted to be used by the blind or visually impaired in accordance with the WCAG 2.0 standard**.**

3.3   **Requirements concerning exhibition elements**

3.3.1   All elements of the exhibition which is the object of this contract ought to be unique, specially created for the Innovation Centre Mill of Knowledge.

3.3.2   Elements of the exhibition have to be resistant to visitors' actions, both the ones compliant and non-compliant with the description included in the exhibition message or the operating manual of the multimedia station.

3.3.3   The elements of the exhibition must remain functional regardless of the daily, multiple mass use (the exhibition may be visited by up to 2000 people daily).

3.3.4   All stations should be designed in a simple enough manner for the visitors to understand how to operate them (their use should be intuitive), while at the same time they should be interesting enough for the visitors to focus on them for a longer while and invite them to play and interact.

3.3.5   The elements of the exhibition must be designed in such a way as to allow people with various kinds of disabilities to access them as fully as possible; particularly, all multimedia applications must be prepared in accordance with the WCAG 2.0 standard

3.4   **Technical and operating conditions**

It is assumed that the exhibition can be visited daily by about 2000 people, including people with different forms of disability. The aforementioned information is to be taken into consideration when planning the exhibition in terms of technical and operating conditions, taking into account the concept of universal design.

3.4.1   Elements of the exhibition have to be durable and resistant to the visitors' actions:
  a.   they have to operate smoothly despite their daily multiple mass use;
  b.   they must be resistant to the visitors' actions and designed in a way that makes their use according to the manual intuitive and simple;
  c.   they have to be easy to clean, in particular in case of being scribbled with a marker pen, ballpoint pen, paint, etc.

3.4.2   The contents of the exhibition have to meet the EU standards concerning lights and lighting, also with regard to the workplace. The lighting sources ought not to dazzle the visitors or put their eyesight at risk. In order to allow for a more complete reception of the exhibition's contents and in view of the partial lack of natural lighting of the exhibition space, individual lighting of the exhibition's elements ought to be designed. The lighting should highlight the most important elements of the exhibition, both the stations and the arrangement elements, but it may not hamper the use of the stations.

3.4.3 Elements of the exhibition have to made in such a way as to ensure that staying within the exhibition's space will not expose the visitors to danger and so that the elements can be used safely also by untrained persons and without the help of the maintenance staff.

3.4.4 It is necessary to ensure unobstructed passageways between the exhibition's elements, which ought to be accessible also for the disabled moving on wheelchairs. A system of signs that facilitates the use of the exhibition for the blind and visually impaired (convex, colourful horizontal strips on the floors) and deaf and hard of hearing (distinct, visual indications in the entire exhibition zone) ought to be installed on walls and floors.

3.4.5 The materials used for making the exhibition's elements must have safety approvals and meet European standards for objects of the kind, must be wear-resistant, washable and easy to maintain. The materials and technical solutions used for making the Exhibition's elements, as well as possible operating materials ought to be ecological and energy efficient.

3.4.6 Maintenance of the exhibition's elements ought to be possible to be carried out by the Ordering Party using its own resources.

3.4.7 All doors, cabinets and small doors fitted as parts of the exhibition's elements, protecting the equipment installed inside, made for the management or servicing of the Exhibition's elements ought to be equipped with locks and keys. The Contractor will hand over the keys, together with a spare set, to the Ordering Party.

3.4.8 Operation of the exhibition (all its elements at the same time) has to meet the standards concerning the level of noise in workplaces and public utility places.

3.4.9 It is necessary to provide for the production of spare parts which can be used for repairs (referred to in clause 2.3.4.) made during the warranty period by trained workers of the Ordering Party, for each element of the exhibition.

3.4.10 It is necessary to provide for the protection of consumables for a six months' activity period of the exhibition counting from the opening day, for each element of the Exhibition which requires it.

3.4.11 The Contracting Party requires that all the movable elements of the stations or the elements of design have magnetic stripes or stickers that protect against theft, compatible with the system of anti-theft gates installed in the building where the exhibition will be displayed.

3.5   Requirements regarding the application for managing the exhibition design and a remote management of the exhibition

3.5.1 The Contractor should provide the Ordering Party with access to an application allowing the management of the exhibition design and a communication between the Contractor and the Ordering Party which would enable the Ordering Party to at least the following:

   a. Logging in to the application from the browser upon authorisation through a safe encrypted connection. Communication between the modules working in the local network and the Internet of the system must be held via safe encryption mechanisms of sent data and user authorisation.

b. Provision of designs, elements and contents of the exhibition in electronic form in order for the Ordering Party to introduce amendments, submit comments and give approval; information concerning each element and the contents of the exhibition should be stored in separate folders; the possibility to make the following status designation should be ensured: 'Contractor's proposal', 'Under changes', 'Approved by the Ordering Party', with the history of changes designation (date, time, person introducing the amendment).

c. Adding comments in text, graphic form by authorised employees of the Ordering Party and the Contractor to graphic designs, executive designs, texts, films, applications, graphics and all multimedia solutions for all exhibition elements.

d. Generating summaries of entries and comments for a selected element or content of the exhibition in a readable form, containing date, time, person introducing the amendment, change content). The summaries are to be generated in pdf formats and in editable versions with the possibility to save them on a disc.

e. Providing automatic notification to the Ordering Party via e-mail about any amendments, entries and comments made in the applications. The mechanism is to send all the information as regards implemented changes in the application, i.e. date, person documenting the amendments and the content.

f. Making back-up copies of the application with its entire content automatically and on demand.

The Ordering Party demands that the Contractor transfer to it the licences for an indefinite use of the application and the platform on which it was installed.

3.5.2 The Contractor should submit to the Ordering Party an application that enables a remote management of the exhibition.

The system is based on the application that the Contractor will install on the Ordering Party's server. The system will be comprised of two modules: administrator's
and exhibition management. Access to the modules is to be effected from the browser's level upon authorisation with encrypted connection.

General Requirements of the System:

a. Location in the existing infrastructure (server room and wiring inside and between buildings).

b. The system must be equipped with user's interface in Polish.

c. The system must contain a built-in register that enables recording instances of users' logging in and the actions they performed.

d. The system must enable generating statistics related to its operation.

e. The system must contain mechanisms of authorisation based on the central authorisation system.

f. Communication between the modules working in the local network and the Internet of the system must be held via safe encryption mechanisms of sent data and user authorisation.

g. The system must contain a mechanism of a backup copy automatically and on demand.

h. The system must be based on the client-server-architecture.

The Ordering Party demands that the Contractor submits to the Ordering Party a licence for an indefinite use with no limitation of the number of exhibits operated.

The administrator's module should enable the following:

a. Management of the users' authorisation, particularly in terms of assigning them right of access to system modules.

b. Changing configuration of multimedia exhibit settings.

c. Creation of configuration files back-up copies to all multimedia stations.

d. Creation of copies of all multimedia applications, remaining multimedia and contents they include.

e. Remote installation and software update for each multimedia station.

f. Remote preview of the currently displayed picture on a given multimedia station.

g. Automatic switch off and on of one computer, or a group of computers at multimedia stations at a given time.

h. Preview and change of textual, graphic and film content included in all multimedia applications.

i. Monitoring the work of a multimedia station or a group of stations (e.g. informing the administrator about work – logging in and out, restart, attempts of external users to interfere with the operation system).

j. Monitoring computer parameters in multimedia stations and their elements (i.e. temperature, S.M.A.R.T, etc.).

k. Adding new multimedia stations with the Windows or Linux systems with the possibility to perform the following functions: switching on and off, restarting, remote pulpit based on the VNC system.

l. Generating statistics of using multimedia applications (popularity of multimedia materials, applications or their options, time of multimedia playback).

m. Remote restarting, switching off and on of each multimedia station.

n. Securing the computers against unauthorised interference with the operating system of multimedia stations (hiding the taskbar, blocking the shortcuts, blocking the pulpit, blocking hard disks).

o. Defining executable applications or their parts/fragments that the user may start.

Display management module should contain/enable:

a. A log of events and errors recorded in the course of all multimedia application operations (date, name of the station, information on the lack of

connection, restarting, switching on and off, configuration update, change of all application content types).

b. Creation of a weekly work schedule with the consideration of exceptions for the entire exhibition.

c. Remote restarting, switching off and on of each multimedia station.

d. Previewing textual, graphic and film content included in all multimedia applications.

PART II - EXHIBITS SPECIFICATION

European
Funds
Infrastructure and Environment

European Union
European Regional
Development Fund

1. Multimedia equipment and applications

Minimum requirements as regards different types of multimedia equipment and multimedia applications indicated in the following station specification:

1. Multimedia touchscreen displays built into multimedia kiosks to different stations:
   a. monitor brightness min. 300cd/m²,
   b. angles of view min 178° (vertical) and 178° (horizontal),
   c. touch screen overlay, tempered glass thickness min. 4mm,
   d. number of touch points min. 5,
   e. min. full HD resolution and diameter of 32".

2. Computers – central units built into multimedia kiosks to different stations:
   a. parameters of the central unit must be selected to be universal for the period of min. 7 years and not require hardware elements replacement,
   b. processor that scores at least 4000 in the PassMark rating on page http://cpubenchmark.net , rated thermal output not more than 35W,
   c. acoustic pressure in the distance of 50 cm from the kiosk must not be higher than 30dBa,
   d. equipment support for h.265 codec,
   e. support for display resolution of 3840 × 2160,
   f. power supply with minimum 80 PLUS Silver capacity.

3. Speakers built into multimedia kiosks or the design of different station:
   a. RMS rated power of the speakers min 20W,
   b. directional characteristics to a degree that does not interfere with the playback of other exhibits.

4. Computers/cards for storing and playing back messages for the blind through headphones to different stations:
   a. possibility to load sound files and adjust sound parameters through computer network.

5. Computers/cards for storing and playing back sound files for through headphones to different stations:

a. possibility to load sound files and adjust sound parameters through computer network,
b. RMS rated power of the speakers min 20W,
c. directional characteristics to a degree that does not interfere with the playback of other exhibits.

6. Large displays with a touch blocker function for displaying drawings, pictures, texts, photos, paintings, films, etc. for different stations:
   a. monitor brightness min. 300cd/m²,
   b. angles of view min 178° (vertical) and 178° (horizontal),
   c. min. 4K resolution and diameter of 75".

7. Photo cameras, started with a button, built into the design/ceiling/constituting part of the equipment in stations E.03, E.12, E.16:
   a. image sensor of the camera with the resolution of min 10Mpx and the diameter of 21.6 mm,
   b. good quality of the photo with no noise no flash.

8. Large seamless displays to be placed in the floor at the station E.06, enabling the display of one picture on connected screens:
   a. monitor brightness min. 450cd/m²,
   b. angles of view min 178° (vertical) and 178° (horizontal),
   c. possibility of remote calibration of each of the monitors,
   d. a width of the sum of frames of the combined monitors not more than 5.7 mm,
   e. monitor screen surface secured in a manner that allows easy maintenance, protecting against the possibility of dust getting in between the glass surface and the monitor, and withstanding the impact of a steel ball of 227g from 2m,
   f. construction enabling proper cooling of the set,
   g. acoustic pressure in the distance of 50 cm from the exhibit must not be higher than 30dBa,
   h. min. length 3m, min. width: 2.80m.

9. Headset microphones and a portable sound system for guides at station E.07:
   a. RMS/ max. power: 200W
   b. In-built amplifier
   c. USB MP3/ WMA player
   d. x wireless headset microphones

e. Volume level control

f. Line and microphone inputs

g. In-built battery and battery charger

h. Handle and wheels facilitating transportation

i. Bandwidth: 50Hz - 20kHz

j. Power supply: 240V and 12V.

10. Dynamic microphone for voice-over recordings for the E.09 station:
    a. cardioid microphone with switchable frequency characteristic.

11. Capacitive touch screen built into the E.17 station:
    a. size 32"
    b. Full HD resolution
    c. monitor brightness min. 400cd/m²,
    d. angles of view min 178° (vertical) and 178° (horizontal),
    e. surface of the monitors secured in a manner enabling easy maintenance,
    f. construction enabling proper cooling of the set,
    g. acoustic pressure in the distance of 50 cm from the exhibit must not be higher than 30dBa,

12. Wireless VR Goggles for different stations:
    a. OLED screen with the resolution of at least 2160×1200 pixels (1080 x 1200 per eye),
    b. refresh rate at least 90 Hz,
    c. viewing angle at least 100 degrees,
    d. NOTE: at the moment of preparing the ToR it is already known that the leading VR goggle manufacturing companies on the market make wireless goggles at a price not exceeding the price of available wired goggles. The Contractor should provide for the delivery of wireless goggles, if such technology will be available on the market at the moment of exhibition acceptance. If the technology is not accepted at that time, the Contractor will deliver goggles with standard USB and HDMI cables used for supplying power and data transmission.

13. Dynamic microphones for station E.25:

   a. Transducer: dynamic,
   b. Directional characteristics: cardioid,
   c. Bandwidth: at least 50 Hz-15 kHz.

14. Parameters and types of all applications created for the purposes of the exhibition must be selected in a way that enables their update for at least 7 years.
   Requirements concerning the content of the applications described in detail at station descriptions.

2.   Stations

E.01	Human theatre
Suggested placement	Room W 0.01 opposite the entrance
	Emotions path
Purpose	The visitor is introduced to the climate of the exhibition at the station which is <u>an introduction to the emotions path</u>, and illustrates basic emotions and shows universal facial movements that accompanies each of them.
Size of the station	The station should be located on the area of approximately 30-40m². The space taken by the station should enable free movement between masks, and viewing the masks from the position of a wheelchair.
Elements and requirements	The station will be constituted by models of human heads expressing basic emotions suspended at the ceiling. The models will be located at different heights, but in such a way as to enable a careful examination, study of facial expressions and details of the appearance - 1.8 m at the lowest and 2.4 at the highest. Below them are the illuminating panels. The models will be suspended under the ceiling at different places so that it will be possible to walk between them like in a maze. The space around the station will be organised in such a way as to achieve depth effect and enlargement of space. **Station elements:** − 18 <u>white</u> models with the dimensions equivalent to 120% of standard human head size. 3 models representing facial expressions for 6 basic emotions must be prepared (according to Paul Ekman) in different stages of intensity (fear/terror, anger/fury, sadness/despair, astonishment/shock, disgust/aversion, joy/euphoria). The models should demonstrate faces of women and men at different age, children and youths. Differences in facial shape related to racial distinction should be taken into account (face oval, shape of the eyes, nose, lips), − Illuminating panels placed on the floor under the models (lamps or elements of the structure with the lamps embedded in them), pointed upwards so that the models are lit. Panels should be of various size, corresponding with the level at which the models are placed, and the light of different colours, e.g. blue under the models that express different degrees of sadness, red under the models that express different shades of anger, etc. <u>The adopted colour code must be consistently used with each station related to emotions,</u> − Complementary lighting elements at the ceiling and the walls that add illumination to the models,

	– Arrangement of surfaces of walls, ceiling, floor suggested by the Contractor and merged into the visual concept of the exhibition. The Ordering Party admits the use of additional lower elements of the structure – walls, in order to delineate the station's space. At the same time, the Ordering Party would like to achieve depth effect and expand the space behind and around the maze of faces, through the use of properly selected graphics or mirrors, – Additional station elements: 6 spare models expressing 6 different emotions with elements used for suspending them under the ceiling, – All additional elements required for the proper operation of the station, e.g. illumination management panel. – Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit (e.g. paints, special cleaning agents, spare illumination elements).
Use	Visitors, including people on wheelchairs, will be able to move freely between the models, study their appearance and facial expressions.
Remarks	Two exhibition messages should be placed next to the station: - the first one is related to the emotions path - the other regarding the station itself adapted to be used by the blind (messages for the blind presented as information in Braille system as well as short audio programmes with information about the path and station).

E.02	**Capsules of emotions**
Suggested placement	Room W 0.01 to the left of the Human Theatre station. The visitor should reach the capsules via the Human Theatre.

	Emotions path
Purpose	The visitor learns basic emotions and mechanisms of how they are formed.
Size of the station	The station is composed of 6 capsules, closed at the top, with the maximum height achievable in the area under development, and a diameter that enables a person on a wheelchair enter, leave and manoeuvre inside. In the case of stand-alone capsules the surface occupied by the station should enable free movement between the capsules for a person on a wheelchair.
Elements and requirements	The exhibit will be composed of capsules ascribed to basic emotions. Owing to illumination, sounds, used materials and spatial arrangement, the atmosphere inside each capsule will be ascribed to one of the types of emotions. Visitors, depending on their age will choose one of two levels of expression in which they will learn characteristic features of a given emotion as well as secondary emotions affiliated with the same group, and learn to identify them, and learn what the source of emotions is and whether feeling them is necessary. The Contractor will suggest the content of the presentations. They should not only present the current state of psychological knowledge related to emotions, moods, feelings, passions, but also show situations in which we are accompanied by emotions. An interactive game of recognising emotions caused by different life situations should be suggested. The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs). **Station elements:** – The layout of 6 capsules, closed from the top, devoted to basic emotions: fear, anger, sadness, surprise, disgust, joy, – Multimedia touchscreen displays, built in the capsule walls from the inside or multimedia stands/kiosks which are placed at an angle and protruding from the walls. The displays should be placed at the height that enables both the able bodied and the disabled on wheelchairs to conveniently access them, – Additional capsule interior arrangement that corresponds with the presented emotion (graphics, colours, designs, tactile elements that add to the atmosphere, made of durable materials), – Devices for playing audio sound from widely available carriers and speakers on the capsule's ceiling or walls that allow music to be played from a delivered universal carrier, – Recordings of instrumental music that illustrates basic emotions, delivered on a universal carrier,

	– Capsule illumination elements (both inside and the outside walls), – Multimedia presentations on emotions that demonstrate current state of psychological knowledge related to the subject matter, – All additional elements required for the proper operation of the station, e.g. illumination and sound management panel. – Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit (e.g. paints, special cleaning agents, spare illumination elements). Depending on the adopted concept, the capsules may be separate elements or form a system of connected smaller rooms. The outer capsule walls should also be arranged through the use of varied colour code and designs, as well as illumination that correspond with the emotion presented in the capsule. The capsule should form a colourful element of design that attracts attention.
Use	Visitors enter the capsules, and make use of presentations.
Remarks	Near the station an exhibition message should be placed, with the information in Braille system and an audio message for the blind. It may be built in the wall of one of the capsules.

E.03	Written on the face
Suggested placement	Room W 0.01 near the E.02 station

	Emotions path
Purpose	The visitor is familiarised with mimic features and types of body posture that accompany the expression of some emotions.
Size of the station	The multimedia station will constitute a fragment of the entire area design. The kiosk should be placed at a universal height, so that the station can be accessed both by the able bodied and the disabled on wheelchairs.
Elements and requirements	It is said that eyes are the mirror of the soul. However, it is the whole facial expression and the body posture that corresponds with emotions. Each emotion represents a certain set of movements and facial muscle tensions, as well as other parts of the body. If we are capable of decoding them we will get better at communicating more effectively. The Contractor will suggest the content of the presentations. They should represent current state of psychological knowledge related to the expression of emotions and reading them on the basis of facial expressions and body posture. The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs). The Ordering Party suggests that the first part of the presentation contains a photograph selection of people whose faces express different emotions. The visitor's task will be to match the description of an emotion to the right image. Next, the visitor will find out if they had properly decoded the emotions and will find information about what the universal (independent of age, race, origin, etc.) facial features that accompany emotions are. The presentation should be supplemented with the information regarding body posture of a person who feels a particular emotion (e.g. we clench our fists in anger, etc.). In the second section of the exhibit the visitor tries to express particular emotion with facial expressions, they take a picture and compare it with the pictures of other faces (other visitors' and example pictures) expressing the same emotion. They will also be able to (if they decide so) to place the photo in the gallery. A gallery of faces will be displayed on a large screen built in the station's design. Photos in the gallery will be grouped in such a way as to clearly figure out which represent anger, sadness, etc. This may be achieved by grouping the pictures in rows or columns or by creating a colourful patchwork of photographs with colour filters put on (anger photos in one colour, sadness photos in a different colour etc.). It is important that the adopted colour code is coherent with the colours ascribed to particular emotions on other stations. **Station elements:**

	– Design structure in the form of a wall,
	– Multimedia touchscreen built into the multimedia stand/kiosk placed at an angle. The screen should be placed at the height that enables both the able bodied and the people on wheelchairs to access the station,
	– A multimedia display for the presentation of a face gallery built in the arrangement wall,
	– A computer complete with software and multimedia presentations in compliance with the description above, available at the multimedia kiosk,
	– A photo camera built into the arrangement wall next to the display, which enables taking and displaying a photo at a multimedia kiosk and the face gallery display,
	– All additional elements required for the proper operation of the station,
	– Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	Visitors approach the station, start the presentation, take pictures, view them and post them in the gallery (optionally).
Remarks	An exhibition message together with an audio message for the blind should serve as an introduction to the multimedia presentation.

E.04	**Like in a mirror**

Suggested placement	Room W 0.01 next to the E.03 station
	Emotions path
Purpose	The visitor is acquainted with the current knowledge status as regards empathy as well as different types of disorders in terms of feeling emotions and their influence on how an individual functions in society.
Size of the station	The multimedia station together with the accompanying design will constitute a fragment of the entire area design. Universal height for the touchscreen to be mounted (the station may also be used by people on wheelchairs).
Elements and requirements	It turns out that empathy, or sympathy are reflected in the brain structure and the existence of the so-called mirror neurons. Hence the suggested name for the station, where our own brain is the 'mirror' that 'reflects' emotions of the others. The multimedia application suggested by the Contractor should acquaint the visitors with the current state of scientific knowledge on empathy, physiological mechanisms of how it is felt, as well as its social function. It should present information on the discovery and research related to mirror neurons. It should also broach the topical issue of feelings in animals, as well as scientific research related to that issue. The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs). See: http://www.akcja-empatia.pl/category/o-empatii/baza-wiedzy/. The second part of the application should enable interaction between two people who think they know each other well and are in a friendly relationship. Both people are given the opportunity to independently create a simplified map of empathy, using the application's interactive tool, (a map that is similar to the one used for profiling customers by companies, but created on the basis of what we know about the other person, without asking questions). During the task, the persons should be standing or sitting opposite each other to be able to maintain eye contact. At the end of the task both persons switch places and evaluate how true-to-life the prepared maps are. An empathy map is usually prepared on graphic template, answering auxiliary questions. The participants of the task should have a possibility to select those questions from each square of the map from the available menu which they are capable of answering; answers in each square should be presented in the form of 'bubbles', chat, or other interesting graphic form. The completion of the task should not take longer than 5 minutes.

In the third part of the application the visitor will have the ability to examine closely different type of situations when empathising and recognising moods is disturbed. They will learn how people with autism spectrum disorder or alexithymia perceive the world of emotions and how to understand them. On the other hand the presentation should discuss more serious issues, related with disturbances of emotions and feelings in psychopaths or the so-called emotional vampires. Some well-known case studies from scientific or popular scientific literature should be used as interesting facts (they can be found e.g. in Oliver Sacks's popular scientific books).

Station elements:
– An interesting design that is linked to the subject matter,
– Two multimedia touchscreen displays built into two multimedia kiosks/stands placed back to back. The displays should be placed at the height that enables both the able bodied and people on wheelchairs to conveniently access them,
– A computer complete with software and multimedia applications in compliance with the description above,
– All additional elements required for the proper operation of the station,
– Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.

Use	The visitors approach the station, perform an exercise, start it and view a multimedia presentation.
Remarks	An exhibition message together with an audio message for the blind should serve as an introduction to the multimedia presentation.

E.05	**Emoticons**
Suggested placement	Room W 0.01 near the E.04 station

	Emotions path
Purpose	The visitor expresses emotions through an act of creation
Size of the station	The station must be adopted to a simultaneous use by four people, including people on wheelchairs.
Elements and requirements	The station should facilitate the expression of an emotion which is at that particular moment felt by the Visitor through a creative act – e.g. through the creation of a drawing – emoticon, graphic, or selection of a music theme and an accompanying moving graphic animation. The visitor should be able to demonstrate the efforts of their work to others. Additionally, the visitor will have an ability to prepare a pin-back button characterised by positive emotions – a gift to a close person. **NOTE:** The Ordering Party admits other creative means of expressing emotions in exchange (except for pin-back buttons) proposed by the Contractor, as long as they prove more interesting in the Ordering Party's opinion. Station functions: – The creation of graphics will be organised in a traditional manner, by drawing at a table; it will be possible to demonstrate the created graphics by attaching them to a magnetic board near the station, – The creation of emoticons will be realised through drawing additional elements to coloured sticky notes in different shapes, which are prepared beforehand, (for each of the 6 emotions a specially selected shape and colour consistent with the adopted colour code for emotions on the remaining stations). Emoticons can then be taken back home or stuck on a board next to the station, as demonstrated here: https://medium.com/writing-the-ship/subway-therapy-b5e164b039cc – The creation of a light and sound presentation will be effected through the use of a multimedia application. Visitors will choose an audio theme and match it with an animated graphic from the available library. The library contains two catalogues: one with audio themes and the other with animations, which are additionally grouped in accordance with different types and shades of emotions. The application's interface should be interesting as far as graphic and artistic dimension is concerned, and they should be specially created for the purposes of the station. Presentation of the works will be continuous, upon the approval of the Visitor each time, on a multimedia screen next to the station.

- The creation of the pin-back buttons will take place at a table. The visitor will prepare a pin-back button from prepared elements. They will have the ability to create emoticons, inscriptions or drawings, which will be placed under foil on the pin-back button, on their own.

Station elements:
- Design with reference to the station's theme,
- A three-person, e.g. round, table with added seats where the visitors will be creating graphics by drawing additional elements to the templates in the shape of curves printed on work sheets, create emoticons and produce pin-back buttons (each part of the table will be assigned to the creation of graphics, emoticons and pin-back buttons respectively). The stations should be placed next to each other around the table and separated by walls so that the visitors do not disturb one another. The table should be adopted to the use by people on wheelchairs (after the seats are removed),
- The magnetic board, on which the created graphics will be placed, built into the design; the size of the board should enable the presentation of at least 100 graphics in the A5 format simultaneously,
- The wall to which the emoticons will be stuck built into the arrangement, wall dimensions identical with the wall for the presentation of graphics, the wall should be suggestive of its purpose – e.g. one may place a graphic with exemplary notes and texts on its surface,
- The multimedia kiosk, built into the design, the kiosk's touchscreen should be placed at the height that enables both the able bodied and the disabled on wheelchairs to access it,
- A computer built into the kiosk with an application for creating user's presentations and demonstrating them on a larger display,
- A larger multimedia display for demonstrating presentations created by the visitors, built vertically into the arrangement wall next to the multimedia kiosk,
- Two attested and safe machines for an independent production of pin-back buttons with a set of sockets for the production of pin-back buttons with the diameter of 25 mm, 32 mm, 37 mm and 44 mm (one machine for the station and one spare),

	– Materials for the creation of graphics (10 ready-made curve designs printed on A5 sheets - 10 000 pieces in total, 1000 pieces per each design, crayons and pencils in the number sufficient for a 6-month exhibition operating time, magnetic strips for attaching the notes), – Materials for creating emoticons (coloured sticky notes - colour and shape different for each of the six emotions, in the number of 2000 pieces for each of the 6 emotions, colour markers in the number sufficient for a 6-month exhibition operating time), – Components, colour markers and paper for the production of pin-back buttons for the first 6 months of the exhibition operating time (complete materials for the creation of 50 000 pin-back buttons with the diameter of 32 mm), – All additional elements required for the proper operation of the station, – Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	The visitors approach the station and use its individual parts.
Remarks	Near the station an exhibition message should be placed, with the information in Braille system and an audio message for the blind. It may be built into the design.

E.06	Power of emotions
Suggested placement	Room W 1.01
	Emotions path
Purpose	The visitor will go through strong emotions that accompany the completion of the task.
Size of the station	The station must be adopted to be used by able-bodied and disabled people, including people on wheelchairs. Bridge length – at least 3m, width enabling free movement for a person on a wheelchair.
Elements and requirements	The purpose of the station is to stir strong emotions in the Visitors: 1. Fear, present during a walk on a movable footbridge over a precipice, 2. Fear and joy after a virtual bungee jump, 3. Joy, while observing other people laughing sincerely. **Station elements:** – Design structure – a laughter booth – Multimedia touchscreen display built in the multimedia stand/kiosk placed at an angle. The display should be placed at the height that enables both the able bodied and the disabled on wheelchairs to conveniently access it, inside the properly arranged laughter cabin. In order to enable interaction between the visitors, the dimensions of the booth should enable a simultaneous presence of two able-bodied people, or one able-bodied and one person on a wheelchair, – A multimedia presentation, showing at least 10 sincerely and contagiously laughing people at different age (from infants to elderly people, of different races; the selected people must be likable whose laughter will induce laughter in the Visitors), – The footbridge over a precipice: a bridge with a transparent floor placed over an illusory 'precipice': over an illusion of a roaring ocean at the bottom, or a volcano spitting with lava, etc. The illusion should be created through the use of the interactive floor technology (in-built seamless multimedia panels displaying films underneath the bridge); The Ordering Party requires at least two films with different themes (e.g. ocean and

	volcano). The bridge should have rope handrails so that the feeling of security and fear caused by the challenge – walk on a footbridge over a precipice – is enhanced in the visitors. Seamless monitors should be placed not only under the bridge itself, on its entire length, but also protrude for at least 1 m on both sides of the handrails, – The bungee jump bridge with VR goggles, the application should give the impression of real experience in the most achievable degree; the design should account for barriers that the visitor holds on to before the jump, etc. – Computers with the software that operates each task built in the kiosk and the arrangement, – Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit (e.g. spare ropes, spare illumination elements etc.), – All additional elements required for the proper operation of the station. **NOTE:** The Ordering Party alternatively allows the acceptance of the Contractor's proposal in place of one of the options above, if it proves to be more interesting and more valuable in the Ordering Party's opinion.
Use	Visitors walk across a footbridge, bungee jump and enter a laughter booth.
Remarks	Near the station an exhibition message should be placed, with the information in Braille system and an audio message for the blind. It may be built in the design, e.g. the wall of a laughter cabin.

E.07	**Sumo**

Suggested placement	Room W 1.01 near the E.06 station
	Emotions path
Purpose	The visitor will get rid of negative emotions through play, laughter and fun competition. They will come to terms with a situation in which they are exposed to the laughter of others.
Size of the station	The size of the 'ring' – a square with a side length of 5m. The station is not adopted for people on wheelchairs.
Elements and requirements	The station will require an interaction of at least two people - contestants. Other people may observe the 'wrestling', take photos, cheer, make comments. The visitors will have a chance to feel like sumo wrestlers, while wearing a specially prepared costume made of foam and being engaged in a sumo fight. They will learn that it is not easy at all, on account of movement constraints, difficulty getting up from the mat, and the fact that other people find them amusing. **Station elements:** – Design structure with a game clock measuring time of each round and a bell signalling the beginning and end of the round, – A square shaped ring with a side length of 5m, with barriers connected with ropes, padded with soft but durable mats, – Easy to put on and for maintenance (water resistant, preserved by spraying with a washing and disinfecting agent and wiping with paper towel), funny, colourful outfits filled with foam. The outfits should be fastened with Velcro or snap buckles. Elements fitted on the torso, legs and hands separately may be delivered. The visitor wearing a sumo outfit should look funny. Outfits should be delivered in three different sizes (S, M, L). Outfits should restrict movements, and prevent the visitors from harming each other while wrestling. A collision of two visitors wearing the outfits should lead to one of them, or both, being knocked over onto the mat. The outfit should be thick enough and movement-constraining enough, so that getting up from the mat is made difficult. – Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit (e.g. special cleaning agents, spare ropes, etc.), – Two headset microphones (1 + 1 spare) integrated with headphones, portable sound system for the person running the activity,

	— All additional elements required for the proper operation of the station.
Use	Dressed in the outfits, the visitors take part in a wrestling competition. A wrestling fight takes place under supervision of a person operating the station who will assist the contestants to put on the outfit, animate the competition and measure time.
Remarks	Near the station an exhibition message should be placed, with the information in Braille system and an audio message for the blind. It may be built into the design.

E.08	**Pulse of emotions**
Suggested placement	Room W 1.01 near the E.07 station
	Emotions path

Purpose	The visitor will measure pulse after being exposed to a stimulus that creates emotions.
Size of the station	The station must be adopted to a simultaneous use by two people, including people on wheelchairs.
Elements and requirements	The station provides a possibility to measure pulse rate in reaction to visual stimuli that cause negative and positive emotions and emotionally neutral, and view pictures demonstrating brain activity influenced by a felt emotion. The station should include a multimedia presentation discussing the subject of physiological reactions to external stimuli that stir emotions, ways of monitoring, and imaging examination of cerebral areas responsible for feeling emotions. The Contractor will suggest the content of the presentations. They should represent current state of knowledge from the scope of the so-called neuro-sciences linked to the study of emotions. The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs). The second part of the application should be used for imaging emotions on an interactive model of human brain. The model can for example take the form of a multimedia display placed behind the wall with an aperture in the shape of a cross-section of a human brain that fits the size of the displayed image. The display would demonstrate the images of stimulation of human brain function under the influence of different types of emotions - strong, weak, obtained from fMRI examinations. The emotions would be selected by the visitor from the menu on a touchscreen display, next to the brain image, or through the buttons next to the display. (See: http://naukawpolsce.pap.pl/aktualnosci/news,18872,kolory-mozgu-moga-zdradzac-ludzkie-emocje.html). Another part of the station should enable two visitors to make simple pulse measurements at the same time, in reaction to a visual stimulus caused by a positive or negative emotional reaction – a standardised image, e.g. from International Affective Picture System – a database used in fMRI studies. By comparison, neutral stimuli, like a black and white chessboard, should also be displayed. The stimuli should be displayed on demand of the visitor upon pressing an arrow and for the time enabling pulse measurement. Measurement results should be displayed after the measurements session in a manner that shows the correlation between the pulse value and the type of stimuli (positive, negative, neutral). The used images must not contain drastic content, violent images, etc. **Station elements:**

	– The design structure in the form of a wall enabling the display of fMRI cross-sections of human brain, with the dimensions of at least 1m x 1m. – Two multimedia touchscreen displays built into stands placed at an angle, protruding from the design wall. The displays should be placed at the height that enables both the able bodied and the disabled on wheelchairs to conveniently access them – Two finger heart rate monitors, each placed at one multimedia kiosk. – Computer/computers with software, – Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit (e.g. heart-rate monitors, etc.), – All additional elements required for the proper operation of the station.
Use	Visitors use the presentation and then make pulse measurements in reaction to the stimuli that create the emotions.
Remarks	Exhibition messages together with audio messages for the blind should serve as an introduction to the multimedia presentation.

E.09	**Charming voice**
Suggested placement	Room W 1.01
	Emotions, social and cultural paths

Purpose	The visitor will learn how the voice may affect emotions, 'charm', and how to speak in order to communicate effectively. Learns the basics of the art of rhetoric.
Size of the station	The station must be adopted to a simultaneous use by two people, including people on wheelchairs.
Elements and requirements	Voice is a tool that can be used to shape the mood, 'play' on other people's emotions and manipulate those emotions. Why do adverts affect us in spite of being annoying? How do actors use their voice? How to speak to be listened to?

The multimedia presentation will show how a verbal message is received depending on the emotional charge it contains. In the first part of the presentation the visitor will listen to several fragments of selected pieces of Polish and world literature, and commercial slogans. They will be read in a different manner, with a different emotional intensity. The visitor will try to guess the emotions of the reading person and will see how the manner of reading the text influences the subjective reception of the read content.
In the second part of the presentation the Visitor himself will take up the role of the voice-over and perform the task of reading out a text fragment with joy, sadness, anger etc. in interaction with other visitors and checks if he is capable of communicating the intended emotional charge.

The last part of the presentation will contain information and interesting facts regarding the art of rhetoric, or in other words building one's speech in such a way as to convince the interlocutors to accept one's opinions, speaking in a way that attracts the attention of other people, clear and simple way of making a speech and the appropriate manner of voice modulation. It is worth highlighting where such abilities are particularly useful nowadays. Interesting facts should include information and examples related to famous ancient speakers, politicians, who were skilful at manipulating the crowd, or other methods of manipulation used these days by the creators of commercials.
The Contractor will suggest the content of the presentations. They should not only present the current state of scientific knowledge on a given topic. The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs).

Station elements:
– Design structure stylised as a fragment of a recording studio, in which professional voice over takes place, |

	– Seats for the listeners – observers, – A touchscreen multimedia display built into the arrangement. The display should be placed at the height that enables both the able bodied and the people on wheelchairs to conveniently access it, – Stylised to look like a radio, built into the station, microphone and speakers enabling the recording and playback of the voice over, – A computer complete with software and a multimedia presentation in compliance with the description above, – All additional elements required for the proper operation of the station, – Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	The visitors approach the station, start it and view a multimedia presentation.
Remarks	An exhibition message together with an audio message for the blind should serve as an introduction to the multimedia presentation.

E.10	**Pictures of growing up**
Suggested placement	Room W 1.02
	Emotions, social and cultural, maturing paths

Purpose	The visitor will co-author an artistic installation inspired by emotions from the period of adolescence
Size of the station	Form of the station: a wall design or a stand-alone installation. **Ways of creative expression and the elements of the station will be proposed by the Contractor.** The station must be adopted to be used by able-bodied and disabled people, including people on wheelchairs.
Elements and requirements	The station will combine different functions: − it will be a place of subjective feel of the emotions, related to the period of adolescence, both positive and negative, evoked by the visitor himself, − it will constitute a form of condensed art-therapy, − it will enable expression and leaving one's trace at the exhibition, − it will be an artistic installation created together by the visitors, − it will lead to reflection and the comparison of one's emotional load in memories with the memories of other people, while allowing them to realise that the period of adolescence is a shared but difficult experience of all people. Visitors will undergo the task of evoking an emotional event (positive, natural or negative) from their period of adolescence and use it as an inspiration for creative expression. Example solution that illustrates the function of the station choses a note with an appropriate colour corresponding to an emotion, rolls the note and places it in one of thousands holes in a specially prepared wall, according to a particular key. This way, an 'image of growing up emotions', full of different colours is created together with other visitors. **NOTE: The Contractor will suggest a concept of the station at the stage of submitting offers, in compliance with the above requirements as regards purpose, function and interactivity. A detailed conception will be evaluated and will constitute one of the elements of substantive evaluation of the offer.**
Use	The visitors approach the station, they perform the task
Remarks	Near the station an exhibition message should be placed, with the information in Braille system and an audio message for the blind. It may be built into the design.

E.11	Family portrait
Suggested placement	Room W 1.02
	Social and cultural, maturing paths
Purpose	The station will provide an introduction to the social and cultural path as well as an element of a maturing path. Visitors

	will have an opportunity to reflect upon what the period of adolescence is to them and people from their environment and how they understand being adult and mature.
Size of the station	The station, arranged in a form of a family home living room, should be adopted to a simultaneous use by several people, including people on wheelchairs.
Elements and requirements	The purpose of the station is to emphasise family values and the immediate environment of a young man which is responsible for young man's enculturation process in the highest degree and may help go through the adolescence period. A multimedia station arranged in a manner that reminds a living room in a family house. Two multimedia displays with short presentations on the process of maturing and related basic terminology will be built into a table/tables beside the couch and armchairs. After getting familiarised with the presentation visitors will be able to watch the film at the display placed on the wall opposite the couches and armchairs. The display will be stylised as a portrait family photo in an ornamented frame. The film will present several models of families and their statements centred around the topics of adulthood, growing up, being a teenager. The film will include statements of each family member: grandparents and parents who express their opinion on what was and is (from the point of view of an observer of a growing young person) adolescence period for them and, from another perspective, opinion of the youth on how they understand being an adult. The film should feature statements of different families (including families where one of the members is disabled, single-parent families, bilingual parents, families of people from different cultural circles and races, patchwork families, foster families, etc.) as well as people who did not or do not have families for different reasons, etc. The film should be available in Polish, with English subtitles (available at the switch of a button placed on the panel built into the design wall). In the case of people speaking in different languages, Polish or English versions should be available in the form of subtitles. The content of the presentation and the film will be prepared in compliance with the current state of scientific knowledge as regards the process of maturing from the psychological, social, cultural and physiological perspective. The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs). **Station elements:**

	— Design structure imitating a living room in a family home, — A couch, armchairs matching the interior design of the living room (for at least 5 people), two tables with in-built touchscreen displays that enable familiarisation with the presentation, listening to the information about the station by a blind person and controlling the film (selection of language version), — A multimedia screen built into the design, surrounded by a portrait frame, — A computer/computers complete with software and a multimedia presentation in compliance with the description above, — All additional elements required for the proper operation of the station, — Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	Visitors approach the station, sit on couches and armchairs, get familiarised with an exhibition message built in a table beside the couch and the presentation, and watch the film.
Remarks	Two exhibition messages should be placed next to the station: - the first one is related to the social and cultural path - the other regarding the station itself adapted to be used by the blind (messages for the blind presented as information in Braille system as well as short audio programmes with information about the path and station).

E.12	**Bench**
Suggested placement	Room W 1.02
	Social and Cultural Path
Purpose	The visitor will have an opportunity to find out how the norms of appearance accepted in a given culture affect the

	choices we make.
Size of the station	The station should be adopted to a simultaneous use by several people, including people on wheelchairs. The area of the stand should enable a placement of benches on which visitors may sit and pose to photographs.
Elements and requirements	A situation will be arranged at the station which, in addition to taking a souvenir photo and sending it on one's e-mail address, will require from the Visitor making a choice, and then reflecting upon the reason for their choice. The station will feature (at least 4) benches. On some of them realistically looking figures of different external appearance will be sitting, e.g. a shabby looking person suggestive of homelessness, a neat elderly person, two girls - 'pretty' and 'ugly', a young man 'willing to pick a fight', etc. Behind the benches a design should be found which refers to the place where the exhibition is held, encouraging to take pictures against its background with a personal device or a photo camera built into the station. In order not to cover the design, the Visitor will have to sit on one of the benches, and before that make a decision whether to sit next to one of the sitting figures or not. Taking a picture will be possible either by means of a personal device, or by pressing a button in the side rest by each bench. It will be possible to take only one picture at a time. In order to see the picture taken and send it to one's e-mail address, one will have to approach the multimedia kiosk with a touchscreen display. There, the Visitor will see the photo accompanied by a question "Have you wondered why you have selected this particular bench?" It will be possible to send the photo to one's e-mail. When approaching the other multimedia kiosk the Visitor will have an opportunity to find out what in every likelihood drove them when selecting the bench. They will learn that in social situations we are often driven by 'first impressions' and a subconscious update of behavioural patterns or stereotypes acquired in the process of enculturation. Later in the presentation the Visitor will verify if their behaviour is subject to the same principle. For this purpose they will perform a task consisting in matching descriptions (e.g. Adam from Torun, an anaesthesiologist, passion: photography) to photos of true people who agreed to make their photos available for the purpose of the station or people made up for the purpose of the exhibition. It is important that they are people of different jobs, race, age, some

apparently 'not answering' the description. At the end, the Visitor will learn how accurate they were in guessing who the people seen in the photographs were.

The Contractor will suggest the content of the presentations. They should not only present the current state of knowledge from the scope of social sciences. The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs).

Station elements:
– Benches with the figures sitting on them, with size 1:1; the figures may be used with the use of any technique, but they should look realistic, be easy to clean and maintain,
– A photo camera attached to the ceiling in a casing, sending a taken photo to the computer in the first multimedia kiosk. The picture should be taken after having pressed the button placed in the side rest of each bench. A picture can be taken by only one Visitor at a given moment. After the time required for viewing the photo and sending it to an e-mail address has expired, an automatic restart of the possibility to take a photo should occur,
– Two multimedia touchscreen displays in the form of multimedia kiosks placed within the station area,
– Computers complete with software and multimedia presentations in compliance with the description above,
– All additional elements required for the proper operation of the station,
– Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit,
– An exhibition message with headphones that allow it to be listened to by a blind person.

Use	The Visitor is familiarised with the exhibition message, approaches the station, sits on a selected bench, takes a photo, approaches the first multimedia kiosk, views the picture and optionally sends it to their e-mail address. Next, they can use a presentation in the second multimedia kiosk.
Remarks	Near the station an exhibition message should be placed, with the information in Braille system and an audio message for the blind. It may be built into the design.

E.13	I'm special
Suggested placement	Room W 1.01
	Social and Cultural Path
Purpose	The Visitor will realise that they are unique and that they can give something of themselves to others.

Size of the station	The station must be adopted to a simultaneous use by several people, including people on wheelchairs.
Elements and requirements	The station should be arranged in such a way as to encourage every Visitor to reflect upon one's uniqueness and the uniqueness of others. It is meant to make the Visitors attempt at formulating a positive statement concerning oneself, which is much more difficult than self-criticism. The station should be composed of four elements: 1. The wall constituting the arrangement of the station should display statements of people who are famous and appreciated owing to their activity in Poland, in different areas. Each statement will be constructed as a continuation of the sentence "I value myself for ..." The statements of the following people should be presented: Janina Ochojska Jurek Owsiak One of the musicians: Paweł Sołtys (Pablo Pavo), Natalia Przybysz, Tomasz Organek Irena Eris Dominika Kulczyk Robert Lewandowski Martyna Wojciechowska **NOTE:** The Contractor may suggest other people than those listed, however each change must be approved by the Ordering Party and must be in agreement with its vision of the station. 2. Additionally, a multimedia display will be built into the design, presenting films – statements of 'ordinary - exceptional' people of different professions: e.g. cleaner, teacher, woman doctor, lawyer, male nurse, guardian of elderly people, teenager girl, teenager boy, a Mill of Knowledge employee, who will say what they like in themselves or complete the sentence "I am special because ...". These statements must be personalised (through the placement of a signature: e.g. Jan Kowalski, teacher of physics in a high school, etc.). 3. The third part of the station is a table – a place where the Visitor will have an opportunity to complete the sentence/sentences: "I am special because..." "I like myself for..." The sheet/sheets can then be taken back home or placed on a special board next to station.

	4. The station should also include a Pin-Art wall the size of an adult. With the wall, the visitor may create a unique image of themselves. A person who accompanies the Visitor may take a souvenir photo of them. **Station elements:** – The station structure with quotations described above (under the Polish version of the statement an English version should be placed with a smaller font), graphic design accounting for the quotations should be visually attractive and contain photos of the people who utter them in the background or next to the quotes, – A multimedia display for the presentation of films built into the design, – A computer with the software and the presentation – a film, in compliance with the description above, the English version should be available after changing the language version in the form of subtitles, – A table with compartments for notes and markers, colourful sticky notes (50 000 pieces), black markers (500 pieces), – A wall with printed inscriptions: "I like myself for...", "I am special because", under which one will be able to stick notes with inscriptions, placed in the design next to the table, the size of the wall identical, they should enable a presentation of 300 coloured notes at the same time – An adult-sized Pin-Art station, attached to the wall and the design, made of durable materials, easy in operation and maintenance, – All additional elements required for the proper operation of the station, – Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit, – An exhibition message with headphones that allow it to be listened to by a blind person.
Use	The visitor is familiarised with the exhibition message, and uses all the elements of the station.
Remarks	Near the station an exhibition message should be placed, with the information in Braille system and an audio message for the blind. It may be built into the design.

E.14	Talk to me
Suggested placement	Room W 1.01
	Social and Cultural Path
Purpose	The visitor will find out that communication, as well as feeling emotions is not the sole domain of human kind.
Size of the station	The multimedia station will constitute a fragment of the entire area design. The kiosk should be placed at a universal height, so that the station can be accessed both by the able bodied and the disabled on wheelchairs.

| Elements and requirements | Understood colloquially by most of us, communication is human domain. We treat reports about communication between such animals as dolphins or killer whales as interesting facts, or exceptions that prove the rule.

At the station, we will take a closer look at the communication itself and reflect on whether the manner of communicating between animals, and perhaps plants, is consistent with our understanding of the term. A good source of information can be the study of a Dutch-American primatologist Frans de Waal which shows that animals not only communicate effectively, but also demonstrate many social behaviours. In such animals as macaques, bonobos, or elephants one may observe cooperative behaviour that is aimed at reaching the common goal, or behaviours pointing to empathy. A natural consequence of demonstrating such animal behaviours is to pose a question to oneself "Are we smart enough to know how smart animals are?", which is the title of one of the books by an author mentioned above. The station will go even further and we may ask "Do plants and other simple organisms communicate? If yes, how do they do that?" and, can the manner in which they exchange chemical signals about various kinds of threat from the environment be called communication?"

The Contractor will suggest the content of the presentations. They should represent current state of knowledge related to the communication of animals and other organisms. The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs).

The station will have a form of a multimedia kiosk with a multimedia application. In the first part of the presentation we will learn the term 'communication' and kinds of communication typical of people.

In the second part of the presentation we will check if different forms of animal behaviour studied by scientists, presented at the station in the form of interesting facts, meet the standards of communication understood in human terms.

The third part of the presentation should contain information on 'communication' of plants and other organisms. The Visitor should ask a question whether in their opinion it can be called communication.

The last part of the presentation should be an interactive task for visitors where they will recognise mood and codes of behaviour in popular pets, like cats and dogs. The kind of the task will be suggested by the Contractor. |
|---|---|

	Station elements: − Design structure in the form of a wall with a graphic that refers to the subject matter, − Multimedia touchscreen display built in the multimedia stand/kiosk placed at an angle. The display should be placed at the height that enables both the able bodied and people on wheelchairs to conveniently access it, − A computer complete with software and multimedia applications in compliance with the description above, available at the multimedia kiosk, − All additional elements required for the proper operation of the station, − Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	The visitors approach the station and start a multimedia presentation.
Remarks	An exhibition message together with an audio message for the blind should serve as an introduction to the multimedia application.

E.15	**Online**
Suggested placement	Room W 1.01
	Social and Cultural Path
Purpose	The Visitor will realise what challenges and threats are connected to the use of the Internet and communication via electronic devices.

Size of the station	The multimedia station will constitute a fragment of the entire area design. The kiosk should be placed at a universal height, so that the station can be accessed both by the able bodied and the disabled on wheelchairs.
Elements and requirements	The multimedia station will familiarise the Visitor with some of the dangerous social phenomena that have emerged in connection with the ease of communication online, such as hate, or a temptation to create one's image that is removed from reality, and motivation of people who do that. They will also learn the principles of using network resources in a manner that does not infringe copyrights of others. The Contractor will suggest the content of the presentations. They should not only present the current state of knowledge regarding the issues above. When using the Internet it is important to be aware that it is a collection of information about the users which is indestructible and may be used in a manner that we do not realise. In the application, which is part of the multimedia presentation, the Visitor will create a profile in an imaginary social networking service. They will make choices as regards publication of different information online, including photos, giving consent for marketing purposes, combining profiles. At the end they will see a report 'What do we know about you?' in the form of information on the profile which became public, or information that is possible to be used by other users, all as a consequence of the choices that were made. **Station elements:** − Design structure in the form of a wall with a graphic that refers to the subject matter, − Multimedia touchscreen display built in the multimedia stand/kiosk placed at an angle. The display should be placed at the height that enables both the able bodied and people on wheelchairs to conveniently access it, − A computer complete with software and multimedia presentations in compliance with the description above, available at the multimedia kiosk, − All additional elements required for the proper operation of the station, − Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	The visitors approach the station and start a multimedia presentation.
Remarks	An exhibition message together with an audio message for the blind should serve as an introduction to the multimedia application.

E.16	Cultural photo booth
Suggested placement	Room W 1.01
	Social and Cultural Path
Purpose	The visitor will become a member of a selected subculture and become acquainted with the information about it.
Size of the station	The station must be adopted to be used by able-bodied and disabled people, including people on wheelchairs.

Elements and requirements	At the station the Visitor will have a chance to find out what they would look like if they took the role of a member of a selected subculture. First and foremost, the exhibit will provide knowledge of different subcultures and help to answer the question of whether we want to be members of one of them. The users will have an opportunity to take a photo of themselves stylised as a member of a given subculture while having at their disposal properly selected clothes, wigs and objects. With the aid of an interactive application that makes use of posters of characteristic music groups, will find out more about each subculture. The design of the exhibit will bear reference to the history of music, emphasising its cultural heritage that way. The station should present various different subcultures: from hippies, through metals, punks, to modern hip-hoppers, goths, emos or hipsters. The choice of groups is important – they must not be subcultures whose aim is to cause racist and hooligan disturbances, like modern-day skinheads, or disrespect towards social norms and values. The selected groups should have both a distinct dress code and preferred type of music. The image of the subculture should also be easy to create through the choice of certain garments and modification of the photo of one's face in a specially designed multimedia application (working like Snapchat, or similar applications).

Station elements:
- Station structure with the design that alludes to the history of music popular among the presented subcultures,
- A photo booth in which, apart from taking a photo, one can modify it by changing facial shape, haircut, adding make-up or piercing and additionally make a film in time-lapse technology from a series of 2-3 photos, the photo booth design should make a good background for photographs,
- Photo booth equipment: a computer with a photo camera and software for taking a photo, displaying it, modifying and sending it to a given e-mail address. During the photo edition in a selected style, background music should be automatically played back, in line with the given subculture. All licences required for an unlimited presentation of the suggested songs at the exhibition should be ensured by the Contractor,
- A wardrobe equipped with a mirror, hangers with outfits and props for dressing as a member of a selected subculture. The costume should be put on the normal clothes, the entire process should be quick and simple, and the outfit should be easy for cleaning and maintenance,
- A spare set of costumes (the Contractor will deliver the total of 14 sets of outfits and props – elements for given styles for the minimum of 7 different subcultures),
- All additional elements required for the proper operation of the station,

	– Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	The visitor is familiarised with the exhibition message, and uses all the elements of the station.
Remarks	Near the station an exhibition message should be placed, with the information in Braille system and an audio message for the blind. It may be built into the design.

E.17	Master
Suggested placement	Room W 1.02
	Social and Cultural Path
Purpose	Visitors express themselves through an act of creation.
Size of the station	The station must be adopted to a simultaneous use by three people, including people on wheelchairs.
Elements and requirements	The station will be composed of several modules facilitating creative expression:

1. Dance master will arouse curiosity in the Visitor by different styles and trends in modern and classical dance. The station will be composed of interactive floor/mat and a multimedia display or a Kinect-type console with a display and software. The user's task will be to repeat dance steps showed on the screen.
2. The master of the composition, on the other hand, will interest the Visitor with different musical styles and will arouse musical creativity. The module will be composed of a Mash Machine or Reactable type device. At the station the visitor will have a chance to make their own musical composition with the sounds available at the sound bank.
3. The comic strip master will facilitate the creation of one's own picture story from ready-made components with demonstrating it to other visitors and sending to an e-mail address.

Each module will work independently, and the volume of the played sounds and melodies must not interfere with the use of other modules,

Station elements:
− Station structure with the design referring to musical and dance styles, and comic strips, with an in-built touchscreen multimedia display in the form of a multimedia kiosk. The multimedia kiosk will serve as an exhibition message, so it should be equipped with headphones that a blind person may use to listen to it. Apart from the message, the kiosk will provide a multimedia presentation containing basic information about modern dance styles, musical styles and the art of the comic strip, as well as the artists who have gained 'mastery' in these fields,
− Dance module: an interactive map or floor with the minimum size of 1.5m/1.5m, a computer with software and a display or a Kinect-type console with a display and a suitable application, headphones for a person that uses the module, other elements required for a proper module use. The solution used should be modern and attractive and take into account the most recent technologies available on the market,
− Composition module: a complete Mash Machine or Reactable-type device in a version for science centres and museums, visually designed in an appropriate manner, sound bank on a carrier, elements of the sound system, other elements required for the proper operation of the module,
− Comic strip module: a computer - central unit that manages the device, a capacitive touchscreen display placed on the table and built in the table, a graphic multimedia application with elements for creating comic-strips, removable seat. At the library Visitors will be able to use drawings of people in different poses, objects and

	templates in different shapes for entering texts from a multimedia keyboard, through the completion of ready phrases from the available scrollable menu. Using the 'drag and drop' method they will be able to place elements on each of 8 squares of a 1-page picture story matrix. In addition to using ready-made elements they will be able to add the drawings of the story elements with the use of a stylus. They will have a possibility to use simple tools for drawing from an available menu (line thickness, type of line, line colour, filling the element, rubber, undoing the previous step, etc.) so that edition is simple, quick and intuitive. Presentation of selected comic strips will be continuous on a multimedia screen next to the station, upon the approval of the Visitor each time. The Contractor should ensure that the creation of stories containing foul language or illegal content is not possible, – 500 styluses for capacitive displays in a colour that is in line with the colours of the exhibition, – Spare elements depend on the technologies used, – Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	Visitors are familiarised with the exhibition message and the presentation, and use all the modules of the station.
Remarks	An exhibition message together with an audio message for the blind should serve as an introduction to the multimedia presentation.

E.18	**Music festival**
Suggested placement	Room W 1.02
	Social and Cultural Path
Purpose	The visitor will learn the history of selected music festivals and take part in them virtually.
Size of the station	The station must be adopted to a simultaneous use by three people, including people on wheelchairs.

Elements and requirements	The visitor will learn the history of the biggest festivals of popular music, classical music, jazz, blues, electronic music, etc. With VR goggles they will have an opportunity to move to one of three selected festivals (presenting three different musical styles). **Station elements:** 1. Station structure with the design referring to musical festivals, with an in-built touchscreen multimedia display in the form of a multimedia kiosk. The multimedia kiosk will serve as an exhibition message, so it should be equipped with headphones that a blind person may use to listen to it. Apart from the message, a multimedia application containing information about the history of music festivals will be available, 2. Three armchairs – seats spread e.g. on a circle plan, back to back, equipped with VR goggles and headphones that enable the use of the application – 'immersion' in the virtual reality of a selected festival, 3. A computer/computers with VR applications with festival recordings that give an impression of taking part in the event. A selection of the event should be in accordance with the available menu, with the aid of a simple device like a Joystick or a TouchPad (three different festival applications presenting different musical styles should be delivered), 4. Spare VR goggles and other spare elements, 5. Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	Visitors are familiarised with the exhibition message and the presentation, and use all the parts of the station.
Remarks	An exhibition message together with an audio message for the blind constitutes part of a multimedia kiosk application.

E.19	Pin up or Swag?
Suggested placement	Room W 1.02
	Social and Cultural Path
Purpose	The visitor will learn the selected facts from the history of fashion and fashion trends from the period of the last several decades.
Size of the station	The station must be adopted to a simultaneous use by several people, including people on wheelchairs.

Elements and requirements	The aim of the exhibit is to bring to the attention of the visitor what fashion is, its history and trends in fashion in a given period of time, with the use of modern technologies. The visitor will have an opportunity to 'find themselves' in a street of one of the European capitals and observe street fashion from a particular moment in time, with a particular consideration of youth fashion (elements of attire, additions, haircut, etc.).

A particularly neat design should constitute the attractiveness of the station. Apart from the typical elements, such as graphics placed on partition walls, it should contain artefacts related to fashion and style which are appealing to the teenagers and related to the people of fashion and show business. Through a careful selection of fashion artefacts and the stars that are associated with them, they should make a journey in time to the time of Coco Chanel, through the Pin-up style of the 1950s, up until the Swag style that is in among young people of today. The Contractor should highlight them, e.g. in special elements of the structure – transparent cubes sticking out of the design arrangement wall. The artefacts should include both those which were created by a style icon, e.g. a replica of Lady Gaga shoes, and those which relate to the style of the street, but in the version worn by a fashion or show business star. The selection of time periods suggested by the Contractor should not be accidental, but it should highlight the continuity in styles of fashion, or pay attention to those elements which we have 'inherited' from the previous styles and periods. The example here may be fashion for women wearing trousers that was promoted by Coco Chanel.

The Contractor will deliver and highlight at least 8 artefacts related to fashion and style. The artefacts should be recognised by as many young people as possible. The artefacts should be described. Additionally, information on the most important fashion events in the presented period should be placed on the structure.

Station elements:
1. Structure of the station with a design described in detail above,
2. Three armchairs – seats spread e.g. on a circle plan, back to back, equipped with VR goggles and headphones that enable the use of the application – 'transfer' to the streets of Paris, Rome, London, Warsaw in a given year. For each place the Contractor will select a period in time which is interesting to present,

	3. A computer/Computers with four VR applications creating the impression of immersing within a created world. A selection of the place should be in accordance with the available menu, with the aid of a simple device like a Joystick or a TouchPad, 4. Spare VR goggles and other spare elements, 5. Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	Visitors are familiarised with the exhibition message and the design, and use all the parts of the station.
Remarks	An exhibition message together with an audio message for the blind constitutes part of a multimedia kiosk application.

E.20	**Taboo**
Suggested placement	Room W 1.02
	Social and Cultural Path
Purpose	The Visitor will familiarise themselves with the concept of taboo and its social and cultural role.

Size of the station	The multimedia station built into the design of the entire space should be placed at a universal height, so that the station can be accessed both by the able bodied and the disabled on wheelchairs.
Elements and requirements	The original meaning of the word taboo refers to the religious sphere and is related to the protection of the phenomena considered as sacrum, e.g. prohibition to eat animals considered to be totemic ancestors. However, in colloquial speech, taboo functions more as a prohibition and may play various roles in societies. Its existence may be dictated e.g. by reasons related to the well-being of a community (prohibition on eating pork in societies where eating such food may be a source of diseases, or prohibition on coupling closely related members of a community). Colloquially, we often say that a certain issue or a topic is a taboo, which means that we do not discuss it in our community, group or family. In the context of the taboo, it is interesting to consider that certain issues are taboo for people who have not yet come of age (certain things are not discussed in the presence of children), and stop being such when we grow up.

The Contractor will suggest a content of a multimedia presentation regarding taboo, taking into consideration the origin of the term, its original meaning, as well as the manner in which it functions in different cultures and societies. It will demonstrate a situation where something is 'taboo' in one community, but it is not in another. The multimedia application proposed by the Contractor should acquaint the visitors with the current state of scientific knowledge on taboo and its social-cultural function, as well as the relationship of taboo with rituals that function in different societies, including Polish society. A list of taboos that cease to have effect with coming of age can be presented as an interesting fact.

<u>The Contractor will also propose and interactive task for the visitor to be done at the station, related to the concept of taboo.</u>

The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs).

Station elements:
– Design structure in the form of a wall with a graphic that refers to the subject matter,
– A multimedia touchscreen display built into the wall. The display should be placed at the height that enables both the able bodied and the people on wheelchairs to conveniently access it,
– A computer complete with software and a multimedia presentation in compliance with the description above,
– All additional elements required for the proper operation of the station,
– Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.

Use	The visitors approach the station, start it and view a multimedia presentation. They watch the films.
Remarks	An exhibition message together with an audio message for the blind should serve as an introduction to the multimedia presentation.

E.21	**Clinic**
Suggested placement	Room W 1.02
	Social and cultural, maturing paths
Purpose	Visitors will reflect upon the meaning of the word body in an anthropological, sociological and cultural context and will get acquainted with the phenomenon of modifying the appearance, common in many cultures.

Size of the station	The station must be arranged as a fragment of a doctor's surgery at the clinic of aesthetic medicine. The design should be modern and give an impression of luxury. The multimedia station will constitute a fragment of the entire area design. The kiosk should be placed at a universal height, so that the station can be accessed both by the able bodied and the disabled on wheelchairs. Inside the 'surgery' gentle incidental music should be played, against the background of which one can listen to a voice-over narrative about anonymous patients who had their bodies modified and experienced health issues as a consequence.
Elements and requirements	The purpose of the station is to encourage the visitor to reflect upon changing one's body, a phenomenon which is common in many cultures, as well as understanding the term gender in the modern world. Reasons why people make attempts to modify their appearance will be presented. The phenomenon will be presented in a wider context in relation to the notion of gender as a set of certain social norms and behaviours assigned to our biological attributes.

The multimedia station will be equipped in an application that contains texts, films and pictures presenting different techniques of modifying the body, also justification and meaning of these modifications, as well as information on physical and psychological threats that such procedures may be related to. The content of the presentation will be suggested by the Contractor. It should also account for, in the context of modifying appearance and its purpose, the current state of knowledge on the perception of the body and gender in culture. The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs).

Station elements:
- The station must be arranged as a fragment of a doctor's surgery at the clinic of aesthetic medicine.
- Multimedia touchscreen display built in the multimedia stand/kiosk placed at an angle. The display should be placed at the height that enables both the able bodied and the people on wheelchairs to conveniently access it,
- A computer complete with software, a programme and a multimedia presentation in compliance with the description above,
- Devices for playing audio sound from widely available carriers and speakers on the surgery's ceiling or walls that allow music to be played from a delivered universal carrier,
- All additional elements required for the proper operation of the station,
- Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.

Use	The visitors enter the studio, listen to the programme, start and view a multimedia presentation.
Remarks	An exhibition message together with an audio message for the blind should serve as an introduction to the multimedia presentation.

E.22	Maturity exam
Suggested placement	Room W 1.02
	Social and cultural, maturing paths
Purpose	Visitors will reflect upon the meaning of the word mature by comparing tasks and challenges that people of the same age face in different parts of the body. They will also learn the examples of rites of passage into maturity.

Size of the station	The multimedia station will constitute a fragment of the entire area design. The kiosk should be placed at a universal height, so that the station can be accessed both by the able bodied and the disabled on wheelchairs.
Elements and requirements	In different cultures and on different continents people of the same age play different social roles and face different every day challenges. The youth is subjected to various tests and exams, the passing of which will condition their inclusion within the community of adults. In the first part of the multimedia presentation the visitors will have a closer look at one day from the life of girls and boys of the same age, but living in different parts of the world, on different continents, in different surroundings. The people should be selected in such a way as to emphasise differences in the standard and way of everyday life of people in different countries. The presentation should include at least five girls and five boys in such an age that would allow to demonstrate the studying youth and still provided for by the family in some countries, and the youth that work to provide for themselves and their close ones in other countries. Differences in daily schedules, time allowed for education, entertainment, acquiring food, work, care for other members of the community, etc. should be demonstrated. The presentation should contain information on the subject, complete with short interviews with the presented people. One of the boys or girls should be Polish. The second part of the presentation should demonstrate different initiation rituals, exams, tests that young people are subjected to at the threshold of adulthood in different parts of the world. It is also essential to call upon the Polish context here by alluding to one of the exams - the maturity exam (A-level exam equivalent). The content of the presentation will be suggested by the Contractor. The Contractor will also indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs). **Station elements:** – Design structure in the form of a wall with a graphic that refers to the subject matter, – Multimedia touchscreen display built in the multimedia stand/kiosk placed at an angle. The display should be placed at the height that enables both the able bodied and the people on wheelchairs to conveniently access it, – A computer complete with software and multimedia presentations in compliance with the description above, – All additional elements required for the proper operation of the station, – Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	The visitors approach the station, start it and view a multimedia presentation.

Remarks	An exhibition message together with an audio message for the blind should serve as an introduction to the multimedia presentation.

E.23	What's up?
Suggested placement	Room W 1.03
	Maturing path
Purpose	The station will provide an introduction to the maturing path. The visitor will be familiarised with basic facts related to physiological maturing of girls and boys.

Size of the station	The arrangement of the station should imitate a mini cinema room with funny movable seats and a place for a person on a wheelchair.
Elements and requirements	Following the principle that in order not to be afraid one has to understand, we will demonstrate anatomical and physiological changes that take place in the body of a boy and a girl in a humorous way. The film will be displayed on a screen that reminds the cinema in a corner arranged like a mini cinema room. The screen will be constituting a part of a larger wall graphic containing humorous drawings of emotions that accompany the changes taking place in a growing human. Inspiration can be drawn from a film prepared for the Teen Facts exhibition by the NEMO Science Centre from Amsterdam, available on a YT channel: https://www.youtube.com/watch?v=aTY52flChKs. The film should be available in Polish with English subtitles (available upon pressing a button placed on the panel built in a design wall). The content of the film will be prepared by the Contractor in compliance with the current state of scientific knowledge as regards the process of maturing from the psychological, social, cultural and physiological perspective. The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs). **Station elements:** – Design structure in the form of a wall with a graphic that refers to the subject matter, – A multimedia screen stylised to look like a cinema screen, – A computer complete with software and an animated film in compliance with the description above, intended to be played back on the multimedia screen, – At least six funny, colourful, movable seats, – All additional elements required for the proper operation of the station, – Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	The visitors approach the station, sit down and watch the film..
Remarks	Two exhibition messages should be placed next to the station: - the first one is related to maturing path - the other regarding the station itself adapted to be used by the blind (messages for the blind presented as information in Braille system as well as short audio

programmes with information about the path and station).

E.24	**Pimple in a close-up**
Suggested placement	Room W 1.03
	Maturing path
Purpose	The visitor will be introduced to biological processes related to hormonal development in adolescence, they will get accustomed to them and accept as natural and related to all humans at a given age.

Size of the station	The multimedia station together with the table with glasses will constitute a fragment of the entire area design. The kiosk and the table should be placed at a universal height, so that the station can be accessed both by the able bodied and the disabled on wheelchairs.
Elements and requirements	The period of adolescence is related to skin changes which may be a cause of dissatisfaction and frustration caused by one's appearance. The purpose of the station is to show to the youth and make them realise that it is a standard phenomenon and can be handled pharmacologically and through skin care. The station will be composed of four multimedia displays stylised as glasses and a multimedia kiosk.

Presentation in glasses will display magnified skin changes typical of the period of adolescence, and also provide us with the information about how to handle them. A multimedia presentation in the multimedia kiosk will acquaint the visitors with the causes of skin changes and the manners of proper skin hygiene in the period of adolescence. The content of the presentation will be prepared by the Contractor in compliance with the current state of scientific knowledge as regards the physiology of the adolescence period and medicine. The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs).

Presentation available on the following website may serve as a good example of interesting materials for teenagers on different subjects related to maturing:

http://study.com/search/text/academy.html?q=adolescence#/topresults/adolescence

Station elements:

– Design structure in the form of a wall with a graphic that refers to the subject matter,
– Magnifying glasses (3 pairs of glasses) placed on an oblong table, which can be used to watch slide presentations showing skin changes typical of the period of adolescence, displayed on screens. All the glasses should enable watching the same presentation. Scrolling the slides should be effected through the use of buttons,
– Multimedia touchscreen display built in the multimedia stand/kiosk placed at an angle. The display should be placed at the height that enables both the able bodied and the people on wheelchairs to conveniently access it,
– A computer/Computers complete with software and presentations displaying photographs of different skin changes in a slight magnification, together with their Polish and English names, as well as a presentation on the causes of skin changes and proper hygiene and skin care in the period of adolescence,
– All additional elements required for the proper operation of the station,

	− Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	The visitors approach the station, use the goggles and the multimedia kiosk.
Remarks	An exhibition message together with an audio message for the blind should serve as an introduction to the multimedia presentation available at the multimedia kiosk.

E.25	**Funny voice**
Suggested placement	Room W 1.03
	Maturing path
Purpose	The visitor will be introduced to biological processes related to hormonal development in adolescence, they will get accustomed to them and accept as natural and related to all humans at a given age.

Size of the station	The multimedia station together with a stand with three microphone and headphones sets will constitute a fragment of the entire area design. The kiosk and the microphones and the headphones should be placed at a universal height, so that the station can be accessed both by the able bodied and the disabled on wheelchairs.
Elements and requirements	Adolescence is one of the most tempestuous physiological processes. One of them is related to the change in the timbre and the pitch of voice, which changes from child to adult. The process is called the voice mutation. The process is related to physiological changes within the voice organs and takes place in the representatives of both sexes. As the phenomenon of mutation will be treated in a tongue-in-cheek manner, it will allow young people to look at themselves from the side and laugh at themselves. Regardless of their age or sex, everyone at the station will 'undergo' the process of mutation.

The station will be composed of a multimedia kiosk with a presentation, a stand with three microphone and headphone sets, and software for changing the sound of the voice, so that the changes related to mutation can be simulated. The change of the voice should be a little exaggerated, so that a laughter inducing situation is created. People who use microphones and headphones simultaneously should be able to hear each other. The multimedia presentation in the multimedia kiosk will acquaint all visitors with the phenomenon of mutation, and explain accurately the changes that take place within the voice organ and their causes. The content of the presentation will be prepared by the Contractor in compliance with the current state of scientific knowledge as regards the physiology of the adolescence period and medicine. The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs).

Station elements:

- Design structure in the form of a wall with a graphic that refers to the subject matter,
- A stand with microphones and headphones, or a table supplied with movable seats, with a stand with headphones and microphones built into the table, placed in a central position,
- a computer with microphone and headphones managing software, used for voice transformation of a person speaking to the microphone, in a manner that stimulates mutation, people using the sets simultaneously should be able to hear each other,
- Multimedia touchscreen display built in the multimedia stand/kiosk placed at an angle. The display should be placed at the height that enables both the able bodied and the people on wheelchairs to conveniently access it,

	− A computer for managing the multimedia kiosk with software and a presentation on voice mutation and its causes,
	− All additional elements required for the proper operation of the station,
	− Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	The visitors approach the station, use the microphones and the multimedia kiosk.
Remarks	An exhibition message together with an audio message for the blind should serve as an introduction to the multimedia presentation available at the multimedia kiosk.

E.26	**The hormones!**
Suggested placement	Room W 1.03
	Maturing path
Purpose	The visitor will be introduced to biological processes related to hormonal development in adolescence, they will get accustomed to them and accept as natural and related to all humans at a given age.

Size of the station	The multimedia kiosk integrated with the thematic design and a table with a mannequin with an interactive simulation should allow the station to be accessed both by the able bodied and the disabled on wheelchairs.
Elements and requirements	The station will be composed of two parts.

The first part – a mannequin placed on the table – will familiarise the visitors with the structure of glands and organs responsible for the production and secretion of different hormones and their location across the body. After illuminating the mannequin by pressing a button, endocrine glands responsible for the secretion of key hormones, including sex hormones, will be visible. The names of the glands should be placed by the buttons on the table, which are used for illuminating each of the glands. The mannequin should have a universal and schematic appearance, so that glands typical of both sexes, and those characteristic of men and women can be seen.

The second part of the station will take the form of a multimedia kiosk with a presentation composed of two parts - the first will contain accurate information about glands visible on the mannequin, hormones secreted by them and the role of those hormones, with a special consideration of hormonal processes that accompany physiological maturing. The second part of the film, called the 'Chemistry of feelings' will familiarise the visitors with a hormonal activity related to feeling love, being in love, friendship, attachment, etc. Visitors at the station will find out what hormones are produced at different stages of the relationship and what are the stages of love.

The content of the presentation will be prepared by the Contractor in compliance with the current state of scientific knowledge as regards physiology and medicine.

The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs).

Station elements:
- Design structure in the form of a wall with a graphic that refers to the subject matter,
- A table with an interactive mannequin (in compliance with the description above),
- Multimedia touchscreen display built in the multimedia stand/kiosk placed at an angle. The display should be placed at the height that enables both the able bodied and people on wheelchairs to conveniently access it,
- A computer for managing the multimedia kiosk with software and a presentation on endocrine glands, hormones and the chemistry of feelings (in compliance with the description above),
- All additional elements required for the proper operation of the station,

	− Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	The visitors approach the station and use both of its parts.
Remarks	An exhibition message together with an audio message for the blind should serve as an introduction to the multimedia presentation available at the multimedia kiosk.

E.27	Healthy body
Suggested placement	Room W 1.03
	Maturing path
Purpose	Visitors will realise an important role of proper nutrition in the adolescence period and the entire life.
Size of the station	The multimedia station will constitute a fragment of the entire area design. The kiosk should be placed at a universal height, so that the station can be accessed both by the able bodied and the disabled on wheelchairs.

Elements and requirements	The station will pay attention to the role of proper diet in human life with a particular consideration of adolescence and an increased body growth.

The multimedia station will consist of a multimedia kiosk with two applications - presentations. The first of them will make the visitor familiar with basic information on healthy diet and principles of proper nutrition, next, after the visitor says what their body weight, height and age are, as well as the level of physical activity, it will count the energy requirement and basic parameters of metabolism, and in the last part it will allow an independent composition of balanced meals for an entire day and the assessment if the task was done properly. The composition of meals should be attractive for the visitor and be interactive: e.g. through a selection of available product groups from the menu, graphics presenting the products that we wish to place on a virtual plate. After the completion of all meals the visitor will find out if they have followed the principles of proper nutrition, i.e. selected products from different groups properly, planned the intake of the right amount of vegetables and fruit, properly selected time of meals, etc.

The second presentation will contain information on disorders of cravings which often accompany people in the period of adolescence, but not only. The visitor will learn their causes, including those related to the lowered self-esteem, discharging emotions, etc. They will also become acquainted with health consequences of different disorders of craving. They will try to evaluate how much they are subject to those kinds of disorders.

The Contractor will suggest the content of the presentations. They should not only present the current state of knowledge from the scope of medical sciences and physiology. The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs).

Station elements:
− Design structure in the form of a wall with a graphic that refers to the subject matter,
− Multimedia touchscreen display built in the multimedia stand/kiosk placed at an angle. The display should be placed at the height that enables both the able bodied and people on wheelchairs to conveniently access it,
− A computer complete with software and multimedia presentations in compliance with the description above,
− All additional elements required for the proper operation of the station,
− Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.

Use	The visitors approach the station, start it and view multimedia presentations.
Remarks	An exhibition message together with an audio message for the blind should serve as an introduction to the multimedia presentation.

E.28	**Goggles**
Suggested placement	Room W 1.03
	Maturing path
Purpose	Visitors will indirectly learn the consequences of substances (drugs) through a simulation of perceiving the world by a person subjected to them.
Size of the station	An exhibition message as well as two of three described tasks (throwing a ball into the basket and copying a template) should be available for the disabled on wheelchairs.

Elements and requirements	The purpose of the exhibit is to show indirect effects of substances and encouraging the youth to reflect upon the question whether it is worth it. Both belonging to a peer group and the need to test oneself in a particular discipline, e.g. sport, art, music, are very important at that age. We normally use substances when we are under the influence of our peers. In most cases, at this age we usually have particular interests, we do a sport, dance, play an instrument. Do substances influence those areas of our activity? Is this influence positive or negative? The visitor's task is to perform certain simple activities in special goggles that simulate vision disorders in the state of alcohol and drug intoxication. The visitor will have to perform three tasks: − walking on a line placed between poles (obstacle course), − throwing a ball into a basket, − recreating a simple pattern of geometrical figures on a piece of paper. The Contractor will select the difficulty level so that they are relatively easy to do without goggles and nearly impossible in goggles. **Station elements:** − Design structure in the form of a wall with a graphic that refers to the subject matter, − goggles together with inscriptions placed on four special hangers built into the design (the Contractor will deliver two pairs of goggles simulating disorders after the use of alcohol – alco-goggles, and simulating disorders after the use of drugs - narco-goggles, intended for the use at a station and two pairs of spare goggles for each type), − A basket placed at the height of about 1 m, built into the design and 100 light, colourful balls with the diameter of about 5 cm, − A table with a removable seat, equipped in compartments for notes and markers, templates for redrawing placed on the wall over the table, a supply of notes and coloured markers in a number sufficient for 6 months of the exhibition's operation, − floor with a marked line for the crossing and poles attached to the ground - the poles should be flexible, should have a possibility to bounce back after being pushed, e.g. by a visitor who accidentally walks on it, − All additional elements required for the proper operation of the station, − Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.

Use	The visitors approach the station, put on the goggles and perform the tasks.
Remarks	Near the station an exhibition message should be placed, with the information in Braille system and an audio message for the blind. It may be built into the design.

E.29	**Everything you're afraid to ask...**
Suggested placement	Room W 1.03
	Maturing path
Purpose	The visitor checks their knowledge on the anatomy of reproductive organs of women and men and other facts related to sexual reproduction, pregnancy and birth.
Size of the station	The multimedia station and the table with models should be placed at a universal height, so that the station can be accessed both by the able bodied and the disabled on wheelchairs.

Elements and requirements	The station will allude to the theme of reproduction and sex, which most teenage visitors are familiar with. The purpose of the station is not a complete education in that sphere, but reminding basic facts in a form that is more attractive than school education. At the station, young visitors should also find the answers to some burning questions that they may have in a teen age. While designing the station, the Contractor will dispel some common myths, for instance as regards the size of sex organs or time of a sexual act. Some additional attractions of the station should include interesting facts related to sexual habits from different cultures, including exotic cultures.
	The first part of the station will be comprised of anatomical methods of a man and a woman with removable elements – internal and external sexual organs, intended to be assembled by the visitors.
	The multimedia part will be comprised of a multimedia kiosk with an application. It should be composed of two parts. The first part, after a short introduction and reviewing some facts regarding insemination, course of pregnancy and giving birth, should include questions frequently asked by teenagers, e.g. as regards becoming pregnant, contraceptives, or the myths mentioned above. After clicking on a selected question, a detailed, reliable and substantive answer should appear. In this part of the application the Visitor should be able to use their knowledge in a short quiz, composed of 10 questions, selected randomly from a larger group of 30-40 questions.
	The second part of the application should contain interesting facts regarding sexual behaviour of people from other countries and cultures.
	The Contractor will suggest the content of the presentations. They should not only present the current state of scientific knowledge from the scope of physiology, medical and social sciences. The Contractor will indicate source literature referred to at the stage of evaluating the first stage of contract implementation (exhibition designs).
	Station elements:
	− Design structure in the form of a wall,
	− A table with two anatomical models of a man and a woman with removable elements – models of internal and external male and female sex organs; the removable elements should be described so that it is clear which organ they represent, model size should not be smaller than 80% of standard male or female body size,
	− Multimedia touchscreen display built in the multimedia stand/kiosk placed at an angle. The display should be placed at the height that enables both the able bodied and people on wheelchairs to conveniently access it,

	− A computer for managing the multimedia kiosk with software and applications in compliance with the description above, − All additional elements required for the proper operation of the station, − Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	The visitors approach the station, view and assemble the models, start the multimedia presentation.
Remarks	An exhibition message together with an audio message for the blind should serve as an introduction to the multimedia application.

E.30	**Belly?**
Suggested placement	Room W 1.03
	Maturing path
Purpose	The visitor will humorously learn what it is like to have a pregnancy belly.
Size of the station	The station should be arranged in a manner that enables the performance of tasks that do not require full movement capacity, also to disabled people.

Elements and requirements	Pregnancy is a physiological state, but is it easy to go through? We often come across situations of lack of understanding for women that may feel more tired, have difficulty moving, or performing simple tasks. We will see what it is like for ourselves. The task of the visitors of both sexes is to make simple movements (doing shoelaces in a model shoe, or sitting down on a low chair and getting up) with a dummy pregnancy belly. In order to encourage the visitors to have fun at the station, an element of competition may be introduced - which of the two people will finish the task earlier. **Station elements:** – The design structure in the form of a wall with hangers or shelves for two 'dummy bellies' in advanced pregnancy. The weight of the bellies should be slightly exaggerated in order to reflect the mass increase of a pregnant person. The bellies should be attached to the body by ribbons. The Contractor will deliver two spare dummy bellies. The dummy bellies should be easy to clean and maintain, with a waterproof cover, – The walls should include basic information about the stages of pregnancy, physiological changes and typical ailments that accompany pregnant women, in the form of funny infographics, – A list of tasks to be done, in the form of a printout on the wall, encouraging to compete, – Two chairs which are low enough for a person with the dummy belly to sit down on and stand up again, – A bench and two large shoe models that allow one's foot to be placed inside without taking one's shoe off while doing the shoelace; the shoes should be made of durable, waterproof and easy to maintain material. The Contractor will deliver two spare shoes and 5 sets of spare shoelaces, – <u>The third task will be proposed by the Contractor</u>, who will deliver all the elements and spare materials required for its completion, – All additional elements required for the proper operation of the station, – Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	The visitors approach the station, put on dummy pregnancy bellies and perform the tasks.
Remarks	Near the station an exhibition message should be placed, with the information in Braille system and an audio message for the blind. It may be built into the design.

E.31	Child
Suggested placement	Room W 1.03
	Maturing path
Purpose	The visitor will humorously learn if they can safely handle a baby.
Size of the station	The station should be arranged in a manner that makes it possible to be used by people on wheelchairs (table at a proper length.

Elements and requirements	At a certain age most of us make a decision about being a parent. It seems easy until we think about how it will change our daily life. The station will offer an opportunity to humorously find out about our 'readiness'. The visitor's task will be to change the nappy of a baby mannequin/doll. The doll will make warning signals if we do not handle it properly (dangerously, not gently enough). **Station elements:** − Design structure in the form of a wall that imitates a baby room, − a baby-change table, − An interactive, highly realistic doll - a baby. The doll should cry when moved too violently, and in situations which could cause bodily damage it should make a different warning sound. The Contractor will deliver two dolls (one for the station and a spare one); the doll should be easy in maintenance, − A supply of disposable nappies for changing the 'baby' - 1000 pieces, − All additional elements required for the proper operation of the station, − Consumables and maintenance materials ensuring proper technical and visual condition of the exhibit.
Use	The visitors approach the station, change the 'baby'.
Remarks	Near the station an exhibition message should be placed, with the information in Braille system and an audio message for the blind. It may be built into the design.

S.1	Meeting place on the emotions path
Suggested placement	Room W 0.01 near the E.03 and E.04 stations
	Emotions path
Purpose	A place of meeting and discussion for the participants of classes related to the stations of the emotions path
Size	Number of seats, bench places, pillows, etc. must provide for a group of 20-30 people.
Elements and requirements	− Number of seats: 20-30,

	− The seats should be of rather compact dimensions and easy to maintain, − There should be a possibility of removing the seats and taking them to different locations, at least partially, so that the creation of a meeting place in accordance with the needs were possible, − Seat colours and designs should correspond to the colours and designs used in the arrangement of the exhibition, and particularly the emotions path, − The Contractor will suggest an infographic for marking the meeting place with a graphic concept coherent with other elements of the exhibition. The infographics of each particular meeting place should use different colours.
Use	The Visitor will use the meeting places during the introduction to a class on a given path, at the conclusion of the class, and in the course of it, if required.
Remarks	An infographic devoted to meeting places should be placed near the seats.

S.2	**Meeting place on the social and cultural path**
Suggested placement	Room W 1.01 near the E.18 and E.19 stations
	Social and Cultural Path
Purpose	A place of meeting and discussion for the participants of classes related to the stations of the social and cultural path
Size	Number of seats, bench places, pillows, etc. must provide for a group of 20-30 people.
Elements and requirements	− Number of seats: 20-30,

	− The place may be arranged as an amphitheatre with benches - platforms fitted with durable fitting carpet, placed one over the other, − The seats/benches should be of rather compact dimensions and easy to maintain, − Seat colours and designs should correspond to the colours and designs used in the arrangement of the exhibition, and particularly the social and cultural path, − The Contractor will suggest an infographic for marking the meeting place with a graphic concept coherent with other elements of the exhibition. The infographics of each particular meeting place should use different colours.
Use	The Visitor will use the meeting places during the introduction to a class on a given path, at the conclusion of the class, and in the course of it, if required.
Remarks	An infographic devoted to meeting places should be placed near the seats.

S.3	Meeting place on the maturing path
Suggested placement	Room W 1.03 near the E.03 and E.31 stations
	Maturing path
Purpose	A place of meeting and discussion for the participants of classes related to the stations of the maturing path
Size	Number of seats, bench places, pillows, etc. must provide for a group of 20-30 people.
Elements and requirements	− Number of seats: 20-30,

	− The seats should be of rather compact dimensions and easy to maintain, − There should be a possibility of removing the seats and taking them to different locations, at least partially, so that the creation of a meeting place in accordance with the needs were possible, − Seat colours and designs should correspond to the colours and designs used in the arrangement of the exhibition, and particularly the maturing path, − The Contractor will suggest an infographic for marking the meeting place with a graphic concept coherent with other elements of the exhibition. The infographics of each particular meeting place should use different colours.
Use	The Visitor will use the meeting places during the introduction to a class on a given path, at the conclusion of the class, and in the course of it, if required.
Remarks	An infographic devoted to meeting places should be placed near the seats.