

GUIDANCE AND RECOMMENDATIONS FOR  
NON-GOVERNMENTAL ORGANISATIONS TO SUPPORT  
THEIR COLLABORATIONS WITH UNIVERSITIES IN  
INCLUSIVE DESIGN PROJECT DEVELOPMENT PROCESS

*A Method Suggestion*

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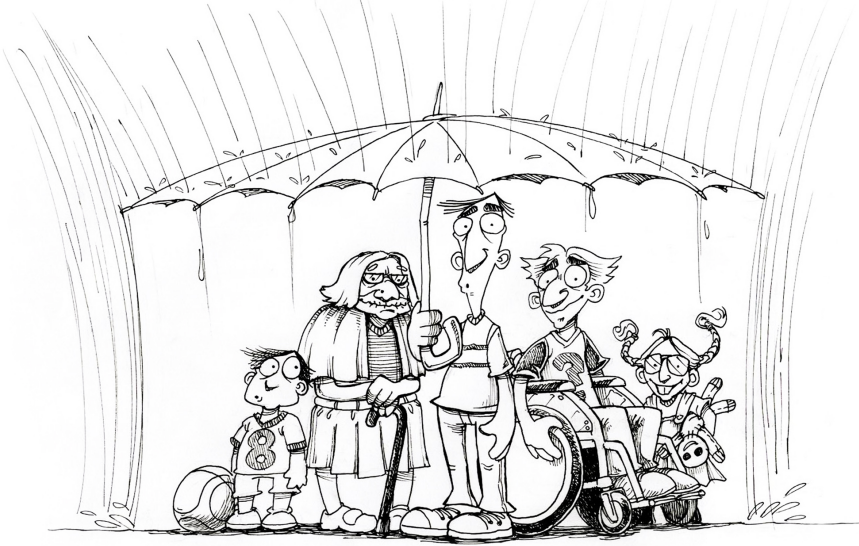
## **About this guidance:**

Inclusive Design SIdE Programme (Sustaining Inclusive Design through Co-design Platforms) is a collaboration project supported by the British Council's "Newton Fund - Research Environment Links Program". In this project, Loughborough University (School of Design and Creative Arts) and Mimar Sinan Fine Arts University (Faculty of Architecture), together with five partners (Spinal Cord Paralytics Association of Turkey, Six Dots Foundation of the Blind, Cambridge EDC, FixEd, and the Design Research Society.) are working together to create a collaborative platform where collaborations on inclusive design research and education can be carried out sustainably.

As a part of the «SIdE Programme Project», this guidance document, which focusses particularly on the collaborations between non-governmental organisations (NGOs) and universities within the scope of inclusive design project development efforts, is prepared. The guidance outlines a framework that can be utilised by NGOs working on disability issues, covering introductory information on inclusive design, and provides recommendations on the NGO involvement in the project development process for the success of the collaboration effort.

In this respect, the aims of the method suggested in the following pages are to provide a framework for NGOs that can be used during design-driven university-NGO collaborations and provide recommendations to increase its effectiveness.

# WHAT IS INCLUSIVE DESIGN?



Inclusive design, as defined by the British Standards Institution (BSI), is the **“design of mainstream products and/or services that are accessible to, and usable by, people with the widest range of abilities within the widest range of situations without the need for special adaptation or design”** (BSI, 2005: p.8).

The definition of BSI, identifies the scope of inclusive design within the limits of mainstream products and services and highlights eliminating the need for special adaptation or design. However, there are also other interpretations to extend the scope of inclusive design beyond the mainstream products/services to cover environments as well.

In this respect, Vandenberg (2008) recognizes the possibility of requirements regarding adjustability and special provision in certain contexts; and accordingly, offers three approaches to provide inclusivity:

1. Designing all products and environments for the broadest possible ‘average’
2. Providing for ‘adjustability’ by individual users, wherever this is possible
3. Making ‘special provision’ for those people who have characteristics and needs that differ so much from the average that they cannot be satisfied even by the most conscientiously designed ‘normal provision’

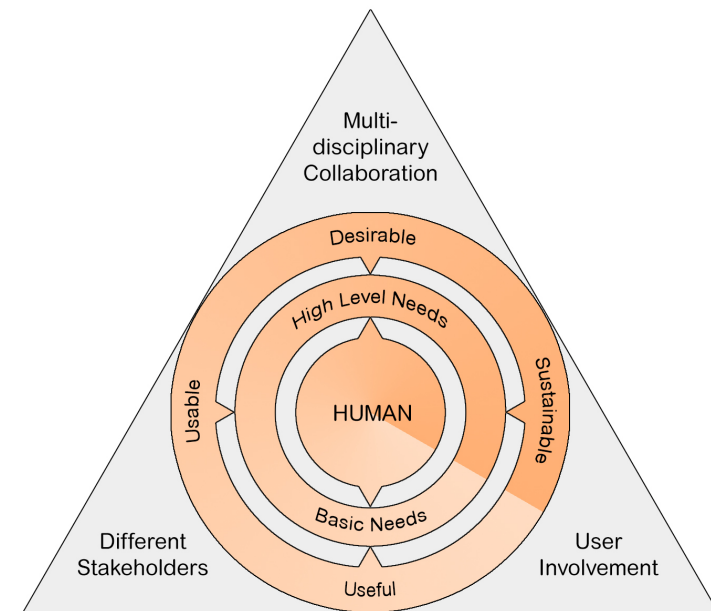
By also taking Coleman’s (2003) interpretation on inclusive design, the definition can further extended from a process to a tool for meeting social and political expectations of equality and inclusivity in society by providing environments, buildings, products, services and interfaces that provide independence of people as much as possible and enhance their quality of life.

In this guidance, we adopted the definition that extends beyond the mainstream products/services to a tool that provides opportunities to overcome issues resulting in inequality in the society, because these are the problems NGOs regularly deal with for the people they represent. Besides our approach focuses on experiential learning of design students through using their design skills on real-life requirements to increase their awareness of inclusive design.

## Why is Inclusive Design Important and how can it be provided?

Inclusive design takes into account “people with specific mobility, dexterity, sensory, and communication impairments; learning disabilities; continence needs; and people whose mental well-being should be supported by a thoughtfully crafted and managed environment.” (CABE, 2008). In this respect, inclusive design supports the desirability of social cohesion, as well as promotes social inclusion, by making public buildings, spaces and services accessible for everyone (Clarkson, Coleman, 2013), e.g. older people, disabled people, international visitors or people who do not or cannot use technology. As a result, the final design solutions are likely to provide inclusivity, as well as support independence and social integrity.

On the other hand, inclusive design requires empathy and understanding of all potential users, and user involvement is key in the design process to identify the real needs and desires they expect from the final design outcome (Dong et al, 2005). An effective approach to achieve this is through working with ‘critical users’ whose ability and perspective challenge designers to ‘think out of the box’. In certain cases, the process can start with focussing on addressing the specific problems of people with disabilities, but the final design outcome may provide a better solution for many others (Dong, 2015). In this respect, it can be said that inclusive design locates humans and their needs at the center of the design process.



As it is summarised in the diagram above (Dong, 2013), human needs include both basic needs and also high-level needs that are more complex to meet, including cultural, moral, esteem values, and so on. Design must address these needs and at the same time be useful, usable, desirable and sustainable. The key to the process is “user involvement” (with various characteristics), engaging “different stakeholders” (from local authorities, NGOs, Government Units or private sector, depending on the subject), and “multidisciplinary collaboration” (involvement of different disciplines to provide different perspectives and solutions) to provide an inclusive design solution (Dong, 2013).

- CABE (2008) *Inclusion by Design: Equality, diversity and the built environment*: Available at <https://www.designcouncil.org.uk/sites/default/files/asset/document/inclusion-by-design.pdf> [Accessed on the Aug 20 th 2020]
- Clarkson, P, J and Coleman, R (2013) *History of Inclusive Design in the UK*, Applied Ergonomics, <http://dx.doi.org/10.1016/j.apergo.2013.03.002>
- Dong H, Clarkson P J, Cassim J, Keates S (2005). Critical User Forums – an effective user research method for inclusive design. *The Design Journal*, V.8(2), 49-52
- Dong H (2015). Strategies for teaching inclusive design. *Journal of Engineering Design*, V.21(2-3), 237-251

- Dong H. (2013). *Global Perspectives and Reflections*. In: Trends in Universal Design – An Anthology with Global Perspectives, Theoretical Aspects and Real World Examples. The Delta Centre, Norwegian Directorate for Children, Youth and Family Affairs



## WHY DO WE RECOMMEND NGOs TO WORK WITH UNIVERSITIES ON INCLUSIVE DESIGN PROJECTS?

When used correctly, the design is a powerful tool to provide solutions on many issues in society and ensure social integrity through accessible public spaces/systems, environments and products that we interact in our daily lives. NGOs deal with these issues regularly and are a good source of information with their knowledge and experiences for designers. In this respect, collaborations with NGO(s) on inclusive design projects, not only increase the awareness of design students on design-related problems causing exclusion but also enable NGOs to experience a design-led approach to overcome these issues. Such collaborations may also enhance the visibility of these issues and their communication with public and a wider group of stakeholders to provide the necessary solutions. There is also a possibility for the outcoming student projects to come to life.

On the other hand, NGOs can provide design students with a perspective on social responsibility and volunteering, and establish a possible long-term partnership with them by increasing their awareness on real-world issues. Many other benefits are covered on the next page.

The primary audience of our «SiDe Programme Project» are universities, university students and non-governmental organisations working on disability issues. Having said that there are also other important stakeholders such as professional designers, design consultancies, local authorities, government bodies, private sectors and other local or international organisations; they can also be involved in the process.

## Benefits of University-NGO Collaborations

1. NGOs working on disability issues have their **experience-based knowledge**, and when it is combined **with academic perspectives**, this can constitute a new area of unique knowledge for all parties.
2. Universities have their networks in academia, which facilitates the **development of an up-to-date and collective research-based knowledge** and presenting it in different formats.
3. Such collaborations may increase the **visibility of the issues** caused by poor designs and enhance **the communication of these issues to the public**.
4. Such collaborations allow NGOs **to experience a co-design process that will provide a different perspective** to reformulate their understanding of the issues.
5. University-NGO collaborations involving design students focusing on real-life issues may result in **future designers who have greater awareness** of these issues.
6. University students are a good **source of volunteers for NGOs**, and such collaborations will provide them a starting point to experience volunteering.
7. Such collaborations may help both parties to understand the potential of **inclusive design** and learn from each other to deal with real-life issues experienced by different communities in society.
8. Such collaborations are valuable from **sustainable development and social utility perspectives** as well.

# SUMMARY OF THE STAGES OF OUR COLLABORATION FRAMEWORK

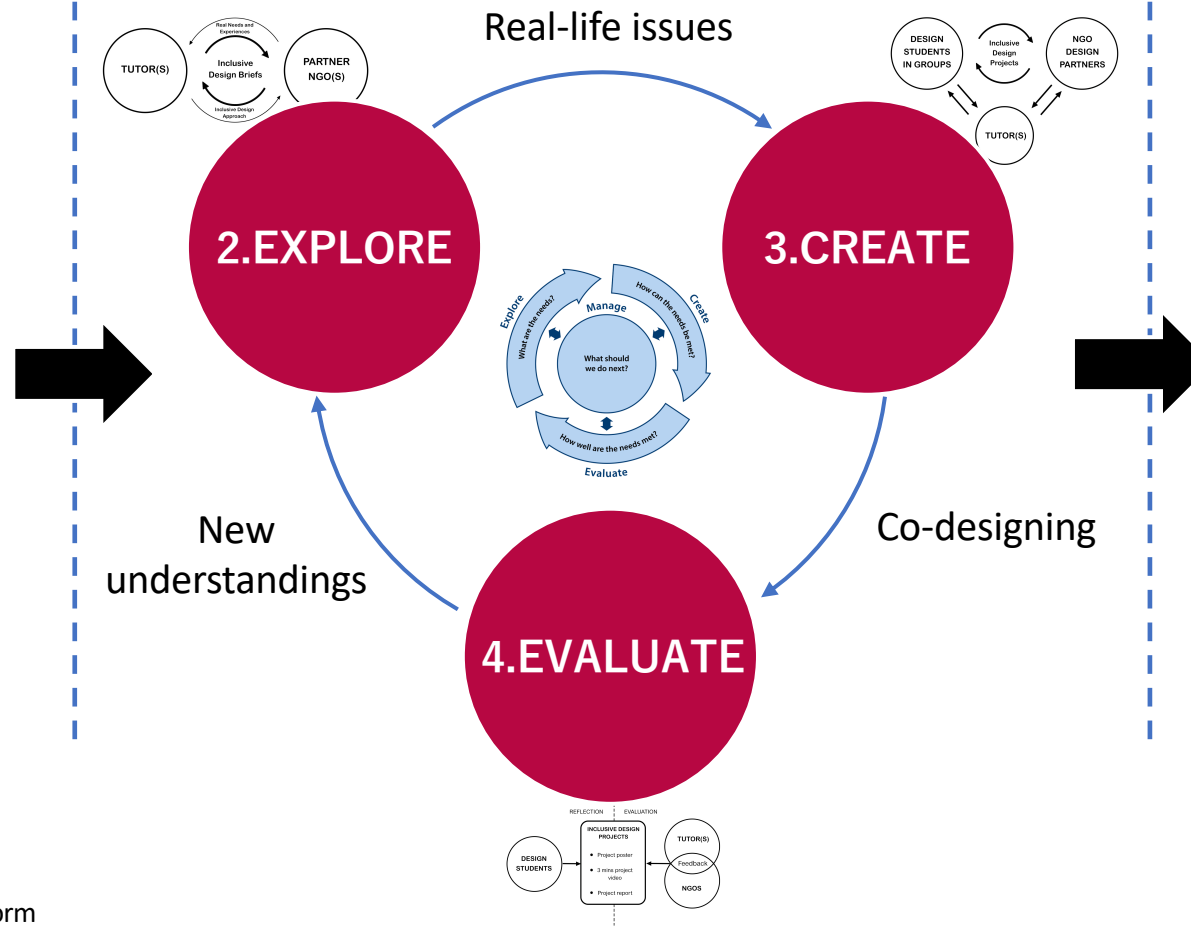
- INCLUDING THE INTEGRATION OF THE STAGES RELEVANT TO THE SIDe WEB-PLATFORM -

Formulate the partnership



1.MATCH

Carry out a co-design process



Make the results visible



5.PROMOTE

- Stages involving our web-platform
- Stages regarding our teaching method suggested

## WHO WILL BE INVOLVED AND WHAT WILL BE THEIR ROLES?

As summarised in the diagram of our recommended collaboration framework, there are 5 stages, which can be grouped under 3 main tasks as summarised in the table below. The table also identifies who is involved in each stage.

The description of the roles of these participants is given on the next page.

RELEVANT TASK	COLLABORATION STAGE	WHO IS INVOLVED?
FORMULATE THE PARTNERSHIP	Establish a « <b>MATCH</b> » between an NGO and University for collaboration.	<ul style="list-style-type: none"> <li>• NGO representatives</li> <li>• University representatives</li> </ul>
CARRY OUT A CO-DESIGN PROCESS	« <b>EXPLORE</b> » the problem area that require a possible design solution and prepare a design brief.	<ul style="list-style-type: none"> <li>• NGO representatives</li> <li>• Tutors</li> </ul>
	Design students work on the design briefs and « <b>CREATE</b> » design solutions in collaborating with their NGO design partners.	<ul style="list-style-type: none"> <li>• NGO design partners</li> <li>• Tutors</li> <li>• Design students</li> </ul>
	Both University and NGO participants « <b>EVALUATE</b> » design outcomes and develop a new understanding through reflections on the collaboration process.	<ul style="list-style-type: none"> <li>• NGO design partners</li> <li>• NGO representatives</li> <li>• Tutors</li> <li>• Design Students</li> </ul>
MAKE THE RESULTS VISIBLE	The design outcomes of the collaboration can be uploaded to our web-platform to « <b>PROMOTE</b> » the collaboration, as well as the design students who developed the inclusive design projects.	<ul style="list-style-type: none"> <li>• University representatives</li> <li>• Design Students</li> <li>• <i>Independent designers</i></li> </ul>

## DESCRIPTION OF ROLES OF THE PARTICIPANTS:

**NGO REPRESENTATIVE:** An NGO representative is the person who is entitled to initiate and/or establish a partnership with a university for collaboration, and will be responsible to manage the overall collaboration, together with the university representative.

**UNIVERSITY REPRESENTATIVE:** A university representative is the person who is entitled to initiate and/or establish a partnership with an NGO for collaboration. This person should also be responsible for a course that focuses on inclusive design project development, and will be responsible to manage the overall collaboration, together with the NGO representative.

**TUTOR(S):** The tutor(s) is the person(s) who teaches in the relevant course in which the collaboration and co-creation effort will be carried out. Depending on the course, there can be more than one tutor, as well as from different design disciplines/departments.

**DESIGN STUDENT:** These are the students taking the aforementioned course that involve inclusive design project development efforts as a part of the collaboration between the university and NGO. Students will work on the design brief(s) in groups (ideally 3-5 people) and together with a design partner from the partnering NGO. Depending on the type of course, student groups can be a mixture of students from different departments.

**NGO DESIGN PARTNER:** An «NGO design partner» is a member of the partnering NGO, who will be utilised to work together with a student group as a design partner throughout the project development process. The person should represent the possible target audience of the design brief in question.

**INDEPENDENT DESIGNER:** A volunteer designer who is not a part of the University-NGO collaboration, but willing to provide a solution to the design brief after seeing it on our web-platform. There is a «project application» function provided under each design brief for this purpose on the web-platform.

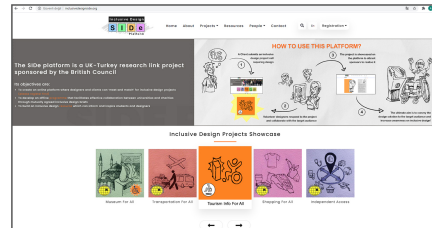
# OUR RECOMMENDED COLLABORATION MODEL

## - INCLUDING THE INTEGRATION OF THE STAGES RELEVANT TO THE SIDE WEB-PLATFORM -

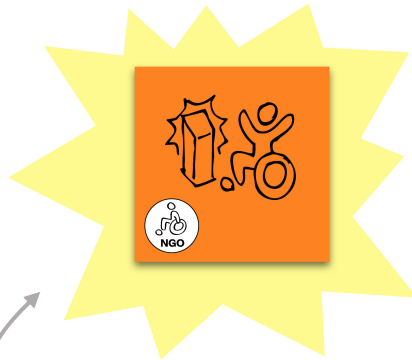
**1. MATCH:** An NGO or a University representative visits our platform as a collaboration initiator and finds guidance about our collaboration model. Our model uses an inclusive design project development process to provide mutual benefits to both universities and NGOs through effective collaboration, which uses design education and volunteer student involvement. In this respect, the first stage covers establishing a partnership between an NGO and a University. A list of NGOs and universities that previously used our model or the others that are open to collaborations can be found under the "Participants" section.



**2. EXPLORE:** After establishing the partnership, the NGO representative works together with the tutor(s) to develop design briefs that both focus on real-life requirements that the NGO deal with and meet the course requirements in which the design students in their relevant course.

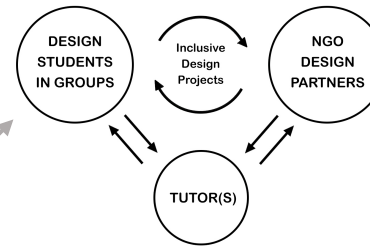


The design brief(s) then can be uploaded to the web platform with the logo of the NGO to make the ongoing collaboration visible.

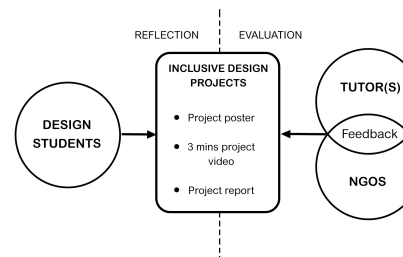


*It is also possible for the collaborators to keep their efforts confidential, and this should be agreed upon among the partners. However, when uploaded, visitors of the web-platform can make comments on the design briefs, and the NGO representatives are able to make certain updates about the progress of the collaboration project. Design briefs also make the problem area visible and help to raise awareness too.*

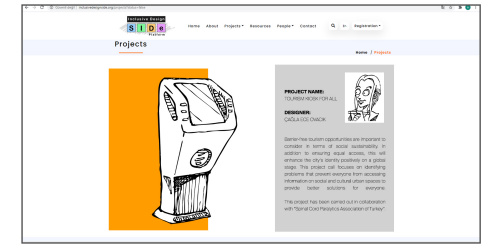
**3. CREATE:** Volunteer design students taking the course respond to the project and collaborate with «design partners» directed by the NGO. Design partners are the members of the NGO, who voluntarily work together with students during the design process throughout the term. Co-creation is fundamental in our model.



**4. EVALUATE:** At the end of the term, students working on different design briefs present their projects to other students and the NGO, and receive feedback from both the tutors and the NGO participants. University organizes this event.



**5. PROMOTE:** The outcome of the projects can be uploaded to the platform by the "university representative" (due to the involvement of students) and then will be exhibited in the gallery section. However, the consensus on confidentiality is important in this stage.



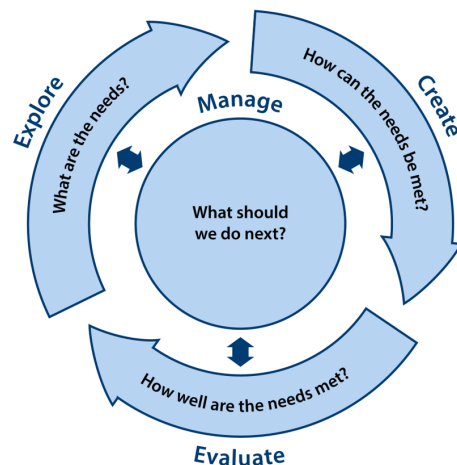
*An invitation can be sent to relevant stakeholders/sponsors to visit the exhibition and this will help make the projects visible to a wider audience. The NGO can publish its organizational profile on the web platform, so other universities can send invitations for new collaborations on inclusive design projects.*



The ultimate aim is to convey the design solution to the target audience and increase the awareness on **inclusive design!**

# THE CONCEPT DESIGN PROCESS MODEL OF INCLUSIVE DESIGN TOOLKIT BY CAMBRIDGE EDC

As could be seen in our collaboration framework on the previous page, we adopted the Concept Design Process Model of Inclusive Design Toolkit by Cambridge EDC, as the basis of our framework (Cambridge EDC, 2020).



The model is comprised of 4 main phases as Manage, Explore, Create and Evaluate. The objectives of these interlinked phases are summarised as a question for each on the diagram. The detailed information about the model can be seen on the website of «Inclusive Design Toolkit» (Cambridge EDC, 2020).

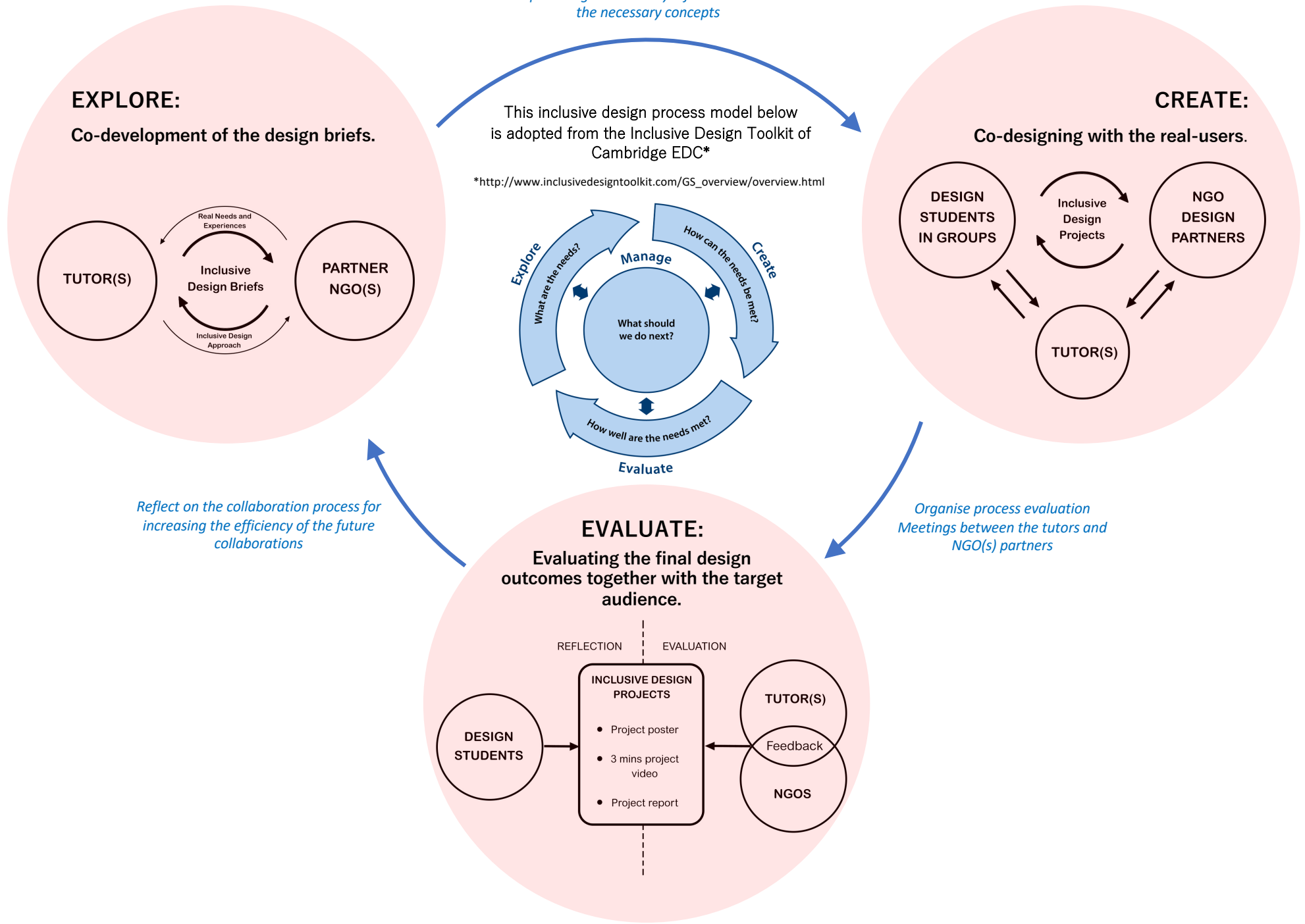
Since our focus is on collaborations between NGOs and Universities through design education and design student involvement, our framework involves the input of different participants in different phases such as design students, their tutors, NGOs and other possible external representatives depending on the course content;; therefore, we use a simplified version of the model on our framework, which is explained on the next page.

## How Our Framework Integrates The Concept Design Process Model Of Cambridge EDC?

Our framework particularly focuses on Explore, Create and Evaluate phases, because tutors and other possible external contributors are involved in the «Manage» phase and the requirements of this phase may vary depending on the course focus/content and expected learning outcomes of the students. The table below summarises the content of these stages in our recommended framework for collaborations between university-NGO within the scope of design education.

PHASES IN THE MODEL (Cambridge EDC)	HOW DO WE IMPLEMENT THIS PHASE TO OUR FRAMEWORK?	CRITICAL INVOLVEMENT
<b>EXPLORE:</b> This «phase is about gaining a deeper understanding of the criteria that the product needs to fulfil».	In this phase, NGO and University representatives work together to prepare design briefs that students will focus on. These design briefs should outline the real-life requirements based on experiences, and should also reflect the course requirements. In this stage, NGO and University representatives need to exchange knowledge and information efficiently.	<ul style="list-style-type: none"> <li>• NGO representatives</li> <li>• Tutors</li> </ul>
<b>CREATE:</b> This «phase is about creating possible solutions to meet the needs and criteria identified by Explore».	In this phase, students work within the design briefs which were identified in the «Explore» stage. NGOs contribute with their volunteer members, who actively take part in the design process as «design partners» and work (co-design) with students throughout the term. Tutors provide feedback to students on a regular basis.	<ul style="list-style-type: none"> <li>• NGO design partners</li> <li>• Tutors</li> <li>• Design Students</li> </ul>
<b>EVALUATE:</b> This «phase is about examining the concepts to determine how well they meet the needs».	It is not always possible to test the design outcomes in education-based practices. However, it is important to evaluate the design outcomes of the students in a meeting where all the partners and students come together and share their unique experiences with each other. This stage is necessary to build a new knowledge area as a result of the collaboration.	<ul style="list-style-type: none"> <li>• NGO design partners</li> <li>• NGO representatives</li> <li>• Tutors</li> <li>• Design Students</li> </ul>

# OUR PROCESS MODEL AND RECOMMENDATIONS FOR THE CO-DESIGN PROCESS





## EXPLORE: Co-Development of the Design Briefs



In our framework, a «Design Briefs» means a written description of the design need, which will reveal a real-life issue that the partner NGO deals with. This description should provide a starting point for students for their inclusive design project works.

The co-development of the design briefs is one of the critical stages of our recommended collaboration framework. This stage enables the transfer of the unique knowledge held by university and NGO representatives reciprocally, and is critical for the efficiency and success of the following stages. It is also important that the NGO representatives are involved in this stage to obtain introductory information about inclusive design and informed about the course requirements before this task.

The aim should be on providing equal benefits to both universities and NGOs involved in the collaboration. In this respect, our web-platform also provides a medium for these design briefs to raise awareness about the real-life issues by making them visible, and enables other visitors of the platform to comment on the issue throughout the collaboration process.

## RECOMMENDATIONS:

- Before this task, tutor(s) with inclusive design knowledge and experience can identify possible topics for design briefs to initiate discussions during the design brief meeting with the NGO representatives.
- During the development of the design briefs, NGO(s) needs to highlight real-life needs and experiences about the topics, and for university tutors, to match these with the course requirements and expected learning outcomes.
- As the outcome of this task, it is recommended to identify a wide range of topics instead of a small number, which will help students to find a suitable topic for themselves and will stimulate discussions between students, tutors and NGO representatives to cover a wide range of social issues.
- The design briefs need to introduce the problem area for students to investigate, rather than pointing out specific design requirements.

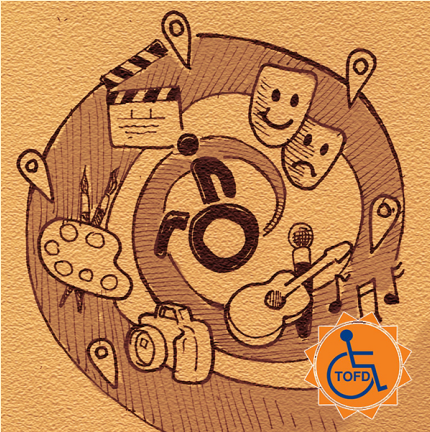
### FOLLOWING THIS STAGE... (IMPORTANT)

In the beginning of the term, NGOs should introduce their organisations to design students in a meeting organised by the tutors. In this meeting we recommend NGO representatives to cover:

- Background information about their NGO and its areas of interest
- Introduction of and discussing the design briefs
- Answering students questions about their organisation and design briefs

**Rather than the tutors, it is recommended for NGOs to introduce the design briefs to students, and associate them with real-life experiences.**

## *A Design Brief Example:*



### **Participation in Public Social Life:**

Urban spaces and the solutions they provide for people have a significant impact on social interaction and cultural development. These environments include different places from restaurants and parks to museums, theatres, cinemas and concert venues where social and cultural interactions occur and include the systems or products used inside as a whole. In addition to the problems regarding the accessibility of disabled people to many events or cultural venues the available solutions in certain locations that are considered accessible do not always provide equal access for disabled people. Considering that there are approximately 12% disabled people in Turkey, it is an undeniable fact that people who cannot access cultural and social services as a result of improper practices form a large part of their community and society.

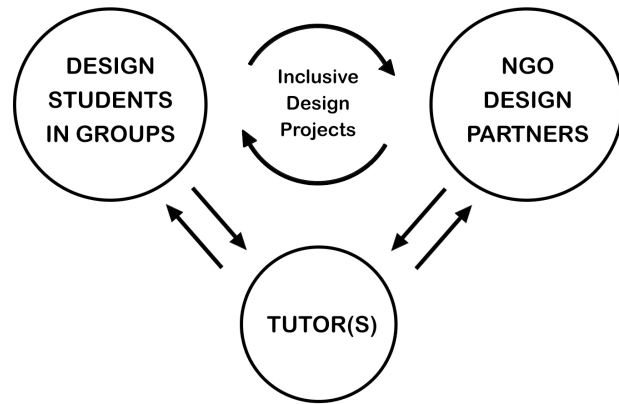
Barrier-free tourism opportunities are also important to consider in terms of social sustainability. In addition to ensuring equal access, this will enhance the city's identity positively on a global stage. This project call focuses on identifying problems that prevent everyone from accessing social and cultural urban spaces to provide better solutions for everyone. This project will be carried out in collaboration with "Spinal Cord Paralytics Association of Turkey".

#### **Certain areas that can be examined within the subject are:**

- Common areas such as restaurants, shopping malls
- Areas to support cultural development
- Accessibility for all to different cultural activities under equal conditions
- Requirements regarding open and closed areas
- Access to information
- Barrier-free tourism



# CREATE: Co-Designing with the Real Users



This is the stage in which the design work starts. At the beginning of this stage, students are grouped by their tutors depending on the design brief they wanted to focus on, and the workgroups that they will carry out the design process are formulated. After this task, NGOs employ their members to join the workgroups of students as «design partners», and work with them together throughout the design process. Their contribution is critical in problem identification, development of the design ideas and (preferably) in evaluating the idea to some extent through prototypes. For the workgroups, we recommend 3-5 number of students and one NGO design partner in each workgroup. If possible, within the scope of the course, multi-disciplinary student groups enrich the learning opportunity not just for the students themselves but for the NGO representatives and their design partners. This will support experiential learning through inclusive design, as well as enable building up a new knowledge area for all partners involved in the process.

In this stage, effective communication between the NGO representatives, tutors and NGO design partners is critical to avoid possible conflicts that may influence the progress of students. Although in most cases this communication will be carried over by students, we recommend tutors to organise meetings to assess the progress and inform each other.

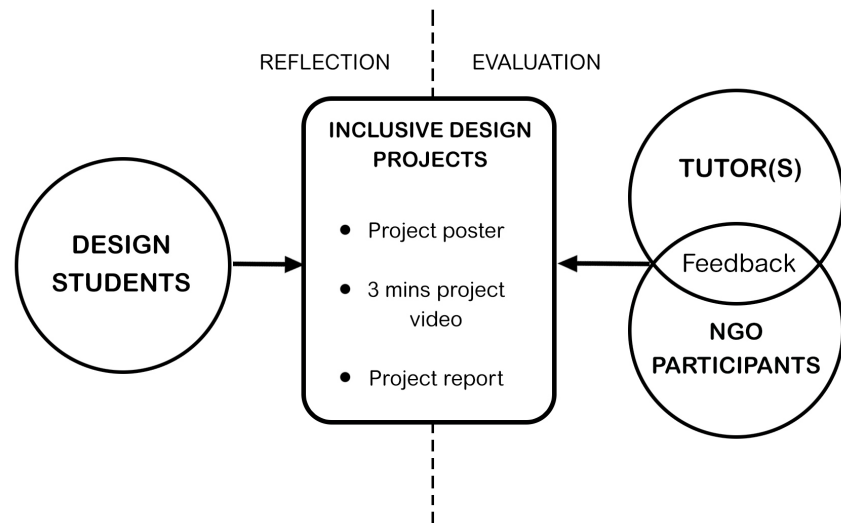
## RECOMMENDATIONS:

- In the first meeting in which the NGO design partner joins the student workgroup, we recommend carrying out an informal but detailed discussion on the design brief. Preferably, NGO design partners can detail the issue by sharing their own real-life experiences to increase the students' empathy, which is significant for designers to provide good solutions.
- NGO design partners' active participation in the design process is fundamental; however, students can be shy for asking questions to their NGO design partner at the beginning of the process. Project outcomes will be maximised where there is good communication between the design partner and the students. If communication is poor, for instance the students may be shy or lack confidence, the design partner should inform the tutors as early as possible.
- Our prior experience suggests the efficacy of utilising an extra person from the NGO(s) who is only responsible for and facilitates communication between students, tutors, NGO administration and NGO design partners from that particular NGO, as well as provide NGO specific information when needed. This person will work as a communication person for that NGO.

### NGO DESIGN PARTNERS' EXPECTED CONTRIBUTION IN THIS STAGE:

PROBLEM IDENTIFICATION	<ul style="list-style-type: none"><li>• <i>Discussions on the design brief by providing factual examples for students to empathise with the target users.</i></li><li>• <i>Helping students to understand the issue and its influence on the target users.</i></li></ul>
CONCEPT DEVELOPMENT	<ul style="list-style-type: none"><li>• <i>Providing active participation in the development of the initial design ideas to answer the design brief, and assessing their appropriateness for the target users</i></li></ul>
CONCEPT SELECTION AND DETAILING	<ul style="list-style-type: none"><li>• <i>Helping students to select the most appropriate design concept and directing them with their experiences while detailing the selected concept</i></li><li>• <i>Providing feedback on the simple prototypes and help them to refine the design</i></li></ul>

## EVALUATE: Evaluating the Final Design Outcomes with the Target Audience



In this stage, the main intention is to provide an environment for all parties to share their unique experiences. A presentation day can be organised, in which the students can present their projects to other students and receive feedback from both the tutors, all the NGO design partners who worked with different student groups and the other NGO representatives who would like to see the results or took part in the process,

Several example student submissions are available on our web-platform via this link: <http://www.inclusivedesignside.org/projects?status=false>

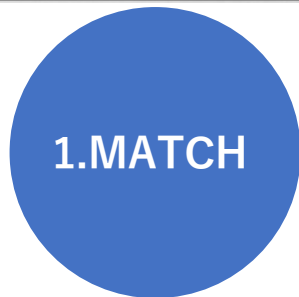
## RECOMMENDATIONS:

- Regarding the project submissions, we recommend students submit 3 deliverables: i.e. **(1)** a poster presenting their work visually (including the key information derived during the project development process, and the details presenting the final design solution), **(2)** a 3-mins project video to present process, and **(3)** a project report to provide detailed information about their overall project development process. All these materials have different advantages and collectively provide all the information to evaluate the final design outcomes. Examples can be seen on our web-platform.
- During the presentation event of the final inclusive design projects, it is important to focus on the unique experiences of the students and their reflections on the experiential processes, rather than solely providing critics to their final design outcomes.
- Depending on the project scale, certain projects may not be possible to prototype or realise, however, these projects may also work for NGOs to communicate the issue in the essence with other stakeholders and public.
- After the evaluation stage, a meeting can be organised between the tutors and NGO representatives/design partners to discuss the positive and negative aspects of the process and allow reflections on them. This will help both parties to improve their knowledge and efficiency of the possible future collaborations. We recommend sustaining these inclusive design collaborations which will allow the development of a new knowledge area, which is valuable for all parties.
- The final design outcomes can be exhibited on our web-platform to increase their visibility for a wider audience. NGOs can send the web link of these projects to other stakeholders to increase the awareness of the issues reflected by the design outcomes. Besides, there is a possibility for possible sponsors to support certain projects for further development and even realise them.

# TO SUMMARISE AGAIN ...

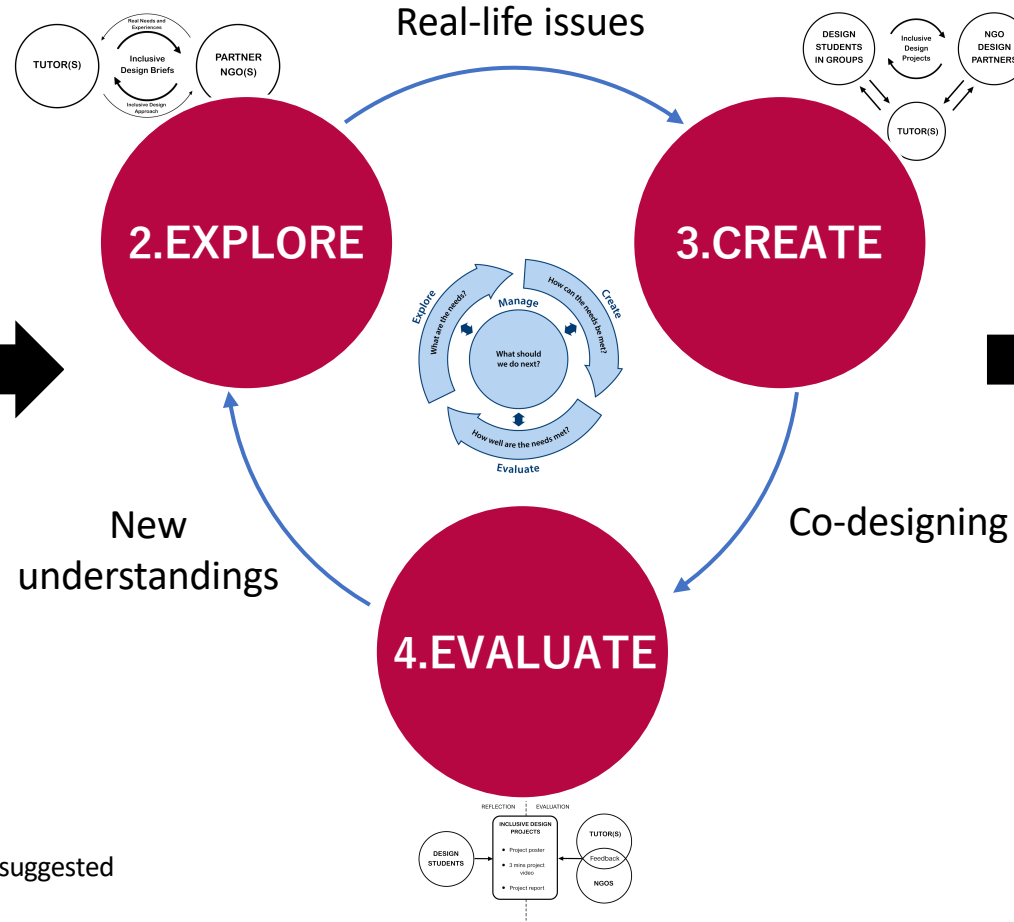
## Formulate the partnership

Match with a University to collaborate on the development of inclusive design projects focussing on real-problems that your NGO deals with, and involving design students' participation as part of their education.



## Experience a co-design process

- Learn about inclusive design
- Develop design briefs together with tutors focussing on real needs
- Make the collaboration visible by uploading the design briefs to our web platform and communicate the issue to public
  - Co-design with students and experience a design process
- Evaluate the student project outcomes and build a new knowledge area



## Make the results visible

Promote the outcoming projects and the successful collaboration by using our web platform and collaborate new collaborations on new inclusive design projects. This will help building a new knowledge area in both NGOs and Universites, as well as provide students greater awareness on inclusivity.



Stages involving our web-platform



Stages regarding our teaching method suggested

## USEFUL RESOURCES:

*The resources are recommended by Hua Dong (PhD Cantab), Professor in Design at Loughborough University, DRS Fellow and International Convenor of the DRS Inclusive Design Research Special Interest Group (InclusiveSIG).*

### Existing resources and relevant organisations:

- <http://www.inclusivedesigntoolkit.com/> What is inclusive design and why do inclusive design? You can find straightforward answers to these questions from this website. The website also explains the process of inclusive design, and gives information about simulations tools and design exclusion calculation tools.
- <http://designingwithpeople.rca.ac.uk> This website offers simple methods and tools for inclusive design. It includes 10 persona profiles based on real disabled people; their daily activities, 20 research methods, and guidance for ethics.
- <http://universaldesign.ie> You can find examples of built environment, products and services, and technology/ICT from this website. There are also a range of freely downloadable guidance, booklets and papers about universal design.

### Key legislation, policies, and standards:

#### **United Nations' convention on the rights of persons with disabilities**

<https://www.un.org/disabilities/documents/convention/convoptprot-e.pdf>

### **The Principles of the Convention are:**

- Respect for inherent dignity, individual autonomy including the freedom to make one's own choices, and independence of persons;
- Non-discrimination;
- Full and effective participation and inclusion in society;
- Respect for difference and acceptance of persons with disabilities human diversity and humanity;
- Equality of opportunity;
- Accessibility;
- Equality between men and women;
- Respect for the evolving capacities of children with disabilities and respect for the right of children with disabilities to preserve their identities.

### **CEN standard: EN 17161:2019 on Accessibility (European Standard)**

- <https://www.cen.eu/news/brief-news/Pages/NEWS-2019-014.aspx> This is a European process Standard about using a Universal Design (Design for All) approach at all levels in organisations to continuously improve and manage the accessibility and usability of the products and services they provide.
- Equality Act 2010: guidance (United Kingdom)  
<https://www.gov.uk/guidance/equality-act-2010-guidance>
- The Equality Act has brought different discrimination legislation together, including:
- Sex Discrimination Act 1975
- Race Relations Act 1976
- Disability Discrimination Act 1995

## Academic papers and books

Persson, H., Åhman, H., Yngling, A.A. Gulliksen, J. *Universal design, inclusive design, accessible design, design for all: different concepts—one goal? On the concept of accessibility—historical, methodological and philosophical aspects. Univ Access Inf Soc* 14, 505–526 (2015).

This paper investigates the various concepts used for accessibility, its methodological and historical development and some philosophical aspects of the concept.

Luck, R. *Inclusive design and making in practice: bringing bodily experience into closer contact with making. Design Studies* 54, 96-119 (2018)

This paper offers insights into the nature of inclusive design: “by bringing the bodily experience of people with (dis)abilities more closely into their own design processes we see positive characteristics and advantages in inclusive design’s closer connections with making.”

Pullin, G., *Design Meets Disability, MIT Press, Cambridge, US (2009)*

A beautiful and thought-provoking book on design and disability.

## Projects and examples

- **Apple: accessibility**<https://www.apple.com/uk/accessibility/> You can see how Apple considers and accommodates different abilities in its design. *görebilirsiniz.*
- **Fixperts**<http://fixing.education/films> Over 500 short Films (Typically 3 minutes each) showing ingenious, generous and inspiring fixes from Fixperts projects. You can view the films according to the categories, e.g. inventions, disability, age, home, work, community, DIY etc.
- **Awards winning inclusive Website:**<https://www.gov.uk/> This website is a good example, showing how you can find UK government services and information “simpler, clearer, faster”

## Information on disability

World Health Organisation: Towards a Common Language for Functioning, Disability and Health ICF

<https://www.who.int/classifications/icf/icfbeginnersguide.pdf?ua=1>

The International Classification of Functioning, Disability and Health, known more commonly as ICF, provides a standard language and framework for the description of health and health-related states. It is a classification of health and health-related domains. These domains are classified from body, individual and societal perspectives by means of two lists: a list of body functions and structure, and a list of domains of activity and participation.

World Health Organisation (WHO) GATE (Global Cooperation on Assistive Technology) [https://www.who.int/phi/implementation/assistive\\_technology/phi\\_gate/en/](https://www.who.int/phi/implementation/assistive_technology/phi_gate/en/)

GATE is a global initiative of the WHO. This is in partnership with stakeholders who represent international organizations, donor agencies, professional organizations, academia, and user groups, to realize the obligations of the Convention on the Rights of Persons with Disabilities towards increasing access to assistive technology.

### Web Content Accessibility Guidelines (WCAG) 2.1

<https://www.w3.org/TR/WCAG/>

WCAG 2.1 covers a wide range of recommendations for making Web content more accessible. Following these guidelines will make content more accessible to a wider range of people with disabilities, including accommodations for blindness and low vision, deafness and hearing loss, limited movement, speech disabilities, photosensitivity, and combinations of these, and some accommodation for learning disabilities and cognitive limitations (but will not address every user need for people with these disabilities.) These guidelines address accessibility of web content on desktops, laptops, tablets, and mobile devices.