Impact of Design for All

Disability and Disaster Preparedness – Toolkit Release

Brussels, 21 May 2015

Francesc Aragall
aragall@designforall.org

Design **da** for all
FOUNDATION

When the society plan its evolution aims to manage the risks:

- ✓ Prevention/ Mitigation
- ✓ Preparedness
- ✓ Response
- ✓ Recovery

But...

Francesc Aragall
aragall@designforall.org

Design **Da** for all
FOUNDATION

✓ We have the tendency to reduce the complexity of the problems to be able to manage them.

✓ We use to underestimate the issues that are unknown for us.

✓ We have a genetic trend to prioritize our own safety.

Francesc Aragall
aragall@designforall.org

Design **Da** for all
FOUNDATION

As a consequence:

- ✓ We avoid tackling with human diversity because it is a too complex problem.

- ✓ We don't consider the different needs of citizens because we don't know about them.

- ✓ There is a higher dead prevalence among those who differ from the concept of "normal person" used in response planning and managing major hazards.

Francesc Aragall
aragall@designforall.org

Design **Da** for all
FOUNDATION

Disability Prevalence by Age: 1997
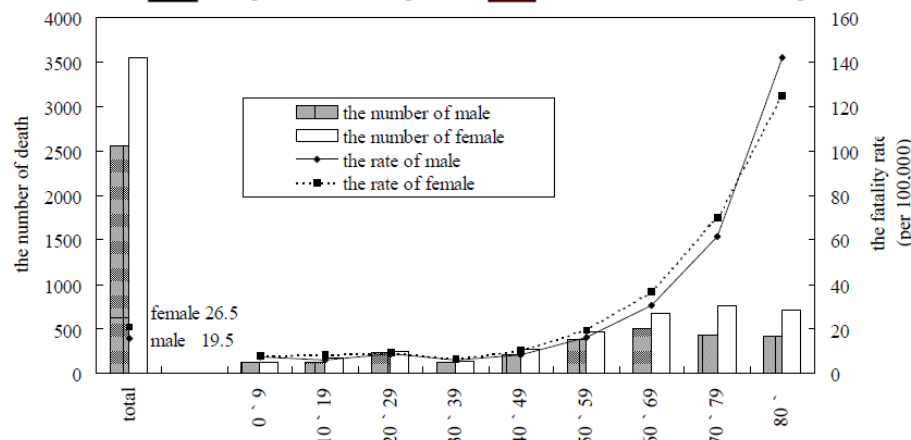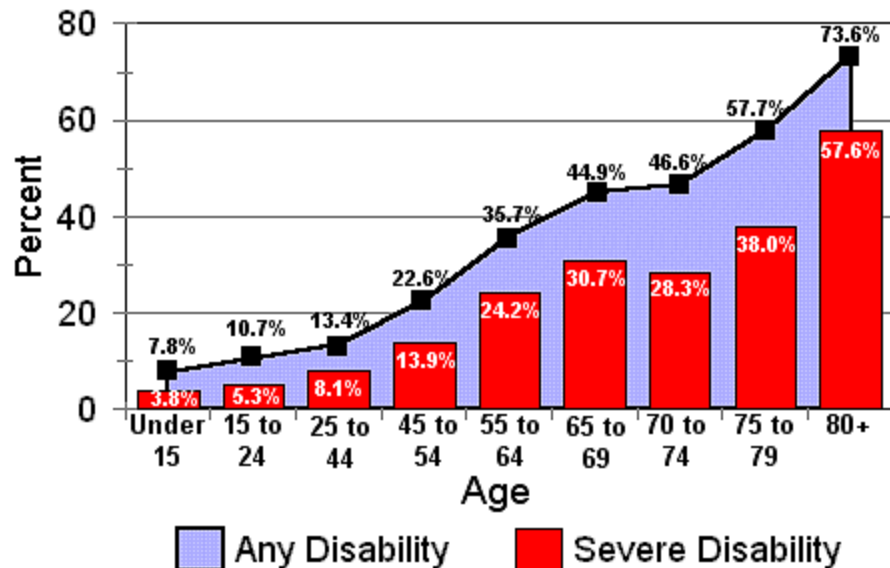## Percent-specified level of disability

Figure 1 The number of death and the fatality rate
(Kobe City)

The coincidence in shape among disability prevalence and the number of deaths in Kobe earthquake probes the previous statements.

Francesc Aragall
aragall@designforall.org

Design for All

can be a way to overcome this problem and its tragic consequences being a **new tool** for strategy planners and training teams

Francesc Aragall
aragall@designforall.org

Design **Da** for all
FOUNDATION

DESIGN FOR ALL

- Design for All is the intervention into environments, products and services which aims to ensure that anyone, including future generations, regardless of age, gender, capacities or cultural background, can participate in social, economic, cultural and leisure activities with equal opportunities.

- In short: **Design tailored to human diversity**

Francesc Aragall
aragall@designforall.org

Design **Da** for all
FOUNDATION

Design for all/Universal Design/Inclusive Design
Aims to create a society for all based on these rights and obligations
(Fukuoka Agreement 2012)

Rights:
- ➢ For everyone to access environments, goods and services to the greatest extent possible.

- ➢ For individual and collective differences to be respected.

- ➢ To be able to develop one's potential personally and in the community.

Obligations:
- ➢ To respect and promote the application of these rights.

- ➢ To promote a sustainable approach for the benefit of future generations.

- ➢ To devote ourselves to the betterment of society.

Francesc Aragall
aragall@designforall.org

Design **Da** for all
FOUNDATION

To fulfill these we propose to develop the following attitudes:

✓ To encourage empathy and recognise each other's needs and aspirations.

✓ To promote collaboration and sharing between the public and private sector, as well as the general public, as a basis for taking the approach forward.

✓ To recognise our differences, but celebrate our commonalities – including shared methods, ideology, practice, goals and challenges.

Francesc Aragall
aragall@designforall.org

Design **Da** for all
FOUNDATION

A tool to put Design for All into practice

The **HUMBLES** method
A people-centred approach that includes the 7 ISF

Highlight opportunities

User identification

Monitor interaction

Break through options

Layout solutions

Efficient communication

Success evaluation

Francesc Aragall
aragall@designforall.org

Design **Da** for all
FOUNDATION

Highlight opportunities (listing the aims)

- ✓ Be sure that all population is included in the plans

- ✓ Anticipate problems

- ✓ Confirm the strategy with the population concerned

- ✓ Find innovative solutions

- ✓ Engage the population

- ✓ Promote mutual assistance

- ✓ ……….

Francesc Aragall
aragall@designforall.org

Design **for all**
FOUNDATION

User identification (diversity among population)

## HUMBLES-User identification

PRODUCT NAME: **COMPANY:**

Suggested instructions:

- Fill the empty fields under each characteristic with colours (i.e.: light blue for the present users, yellow for the potential users and red for the ones that should never be users). You can even write down the percentages for each category if you know them.
- Complete the list of categories for each concept if you find someone missing according to what is relevant for the context of your product or service (i.e.: in use of technology you may add "none" or "smart watch" or others). You can do it by adding rows in the table.
- Delete the concepts that are not relevant for your project and add new concepts using the concept "other" as a frame.

Substitute the top logo of the foundation by your own or your client logo.

Physiological aspects
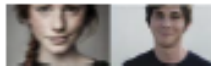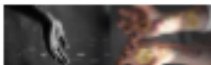
Gender	Female		Male			

Age	0-8	9-18	18-30	30-55	55-65	65-80	+ 80

Sexual orientation	Heterosexual	Homosexual	Bisexual
	%	%	%

Laterality	Right-handed	Left-handed
	%	%

Height	< 50cm	50-100 cm	100-150 cm	150-180 cm	>180 cm

Weight	< 30Kg	30-60 Kg	60-80 Kg	80-100 Kg	>100 Kg

1

HUMBLES-User identification

PRODUCT NAME: **COMPANY:**

Limitations

Transfer of goods			Cannot handle weight	Difficulty handling weight	

Transfer of goods	Cannot handle weight	Difficulty handling weight
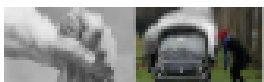
Grasp objects	Only one hand	Both hands with difficulty

Vision	Average vision	Low vision	Blindness

Hearing	Average hearing	Poor hearing	Deafness

Journeys	No problems for walking	Can't walk	Walks with difficulty

Orientation	Poor orientation	Good orientation

Allergies	Gluten	Lactose	Nuts	Pollen	Tobacco	Other

Francesc Aragall
aragall@designforall.org

Design for all FOUNDATION

HUMBLES-User identification

PRODUCT NAME: **COMPANY:**

Social and cultural aspects

Intellectual capacity	Cannot read		Cannot understand complex words		Cannot read long texts	
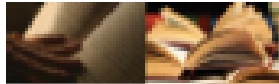
Level of studies	University		Bachelor		Basic		None	
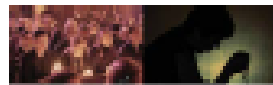
Creeds	Agnostic	Hindus	Muslim	Jewish	Christian	Other
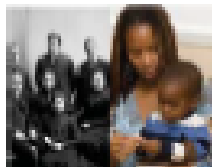
Type of household	Nuclear family	Step family	Single parent family	Extended family	Same house	Homo sexual	Grandparent family	Single	Living Apart Together

Territory or geographical origin	Europe		South America		North America		Oceania		Asia	

Income / economic resources	Low		Medium		High	

Francesc Aragall
aragall@designforall.org

Design for all FOUNDATION

HUMBLES-User identification

Habits

Use of technology

Mobile phone user	Internet user

Sports habits

Sedentary	Athletic

Values

Traditional	Progressive	Vegetarian	Ecologist

Way of transport

Walk	Bicycle	Car	Public transport

Type of house

Small apartment	Detached house	Rented house

HUMBLES-User identification

Other

Other

Conclusions

You can write here your conclusion about the identification of users for your product or service. As example you can estimate the increase of potential users making improvements or guaranteeing that certain criteria are fulfilled.

You can also describe why you discard certain population groups (i.e.: small children and adults not tall enough in certain attractions in an amusement park)

Monitor interaction (how people behave)

- ✓ With whom they communicate?

- ✓ Which are their social connections?

- ✓ Which difficulties in physical activities?

- ✓ Level of risks awareness?

- ✓ Survival skills?

- ✓ ………

Francesc Aragall
aragall@designforall.org

Design **Da** for all
FOUNDATION

Breakthrough options

(decide on appropriate and realistic improvement ways and plan them)
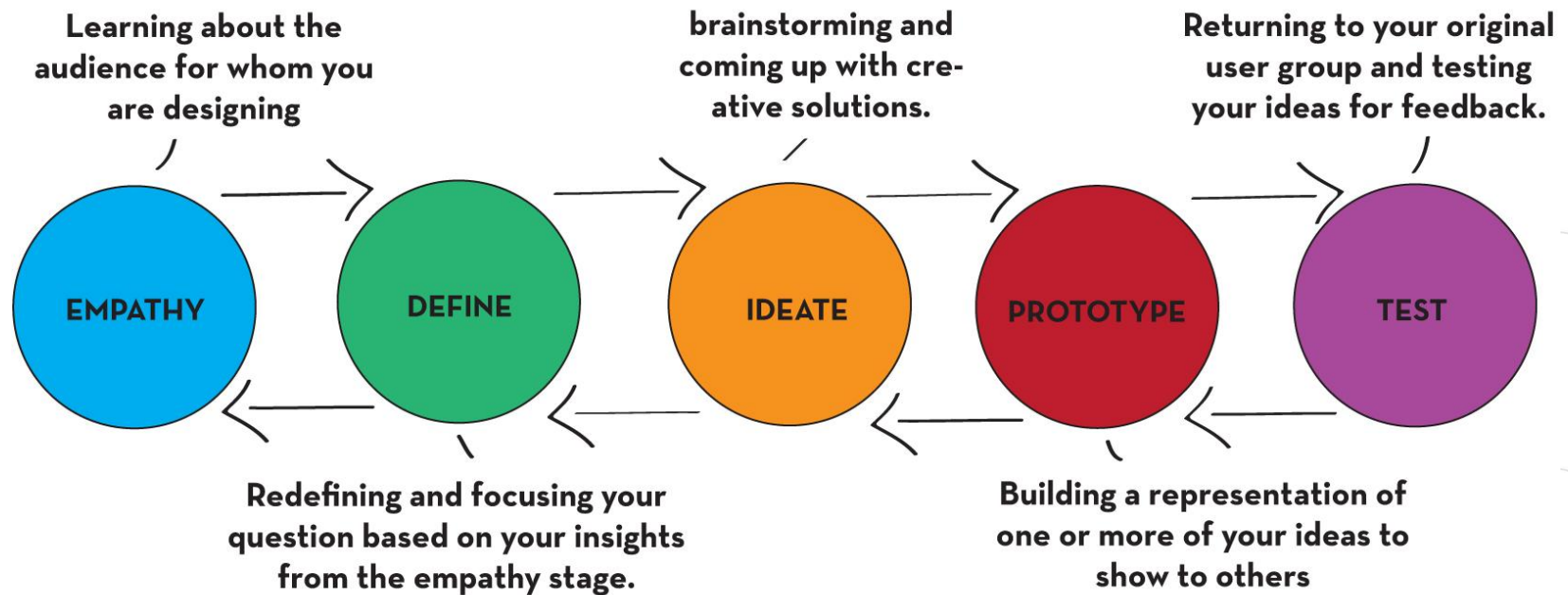
Examples:

- ✓ To increase number of languages in communication means.

- ✓ Special procedures for obese population.

- ✓ Consider creeds in the different phases of crisis management.

- ✓ Guarantee redundancy in communication channels.

Francesc Aragall
aragall@designforall.org

Design **Da** for all
FOUNDATION

Breakthrough options

And then use the Seven Interdependent Success Factors (7ISF) to plan the strategy in a way that no one critical aspect is forgotten.

Francesc Aragall
aragall@designforall.org

Design **Da** for all
FOUNDATION

Layout solutions

(concrete actions, services and products to be developed)

Learning about the audience for whom you are designing

brainstorming and coming up with creative solutions.

Returning to your original user group and testing your ideas for feedback.

EMPATHY → **DEFINE** → **IDEATE** → **PROTOTYPE** → **TEST**

Redefining and focusing your question based on your insights from the empathy stage.

Building a representation of one or more of your ideas to show to others

Citizens involved in all phases!!!
(and check compatibilities among groups' requirements)

Francesc Aragall
aragall@designforall.org
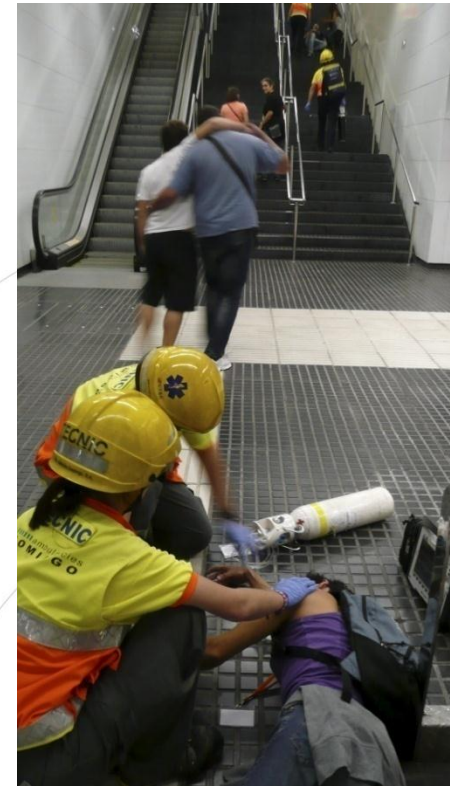
Design **Da** for all
FOUNDATION

Efficient communication

- ✓ Flexibility

- ✓ Avoiding stigmatisation

- ✓ Sincerity and honesty

- ✓ Simplicity

- ✓ Receptivity

- ✓ Permeability

Francesc Aragall
aragall@designforall.org

Design **Da** for all
FOUNDATION

Success evaluation

Define the indicators with which the performance will be assessed, compared and monitor.

Francesc Aragall
aragall@designforall.org

Design for all
FOUNDATION

APPLICATION EXAMPLES
Catalan Railways Emergency Plan
(Fire in tunnel simulation)

Francesc Aragall
aragall@designforall.org

Design **da** for all
FOUNDATION

APPLICATION EXAMPLES

Fukushima workshop to use handcrafts as a tool for tighten social laces and psychological recovery.

Francesc Aragall
aragall@designforall.org
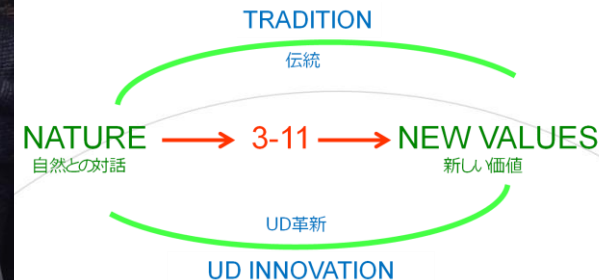
CONCLUSIONS

➢ Design for All/Universal Design can be the right approach to include all citizens and visitors in emergency plans.

➢ It can be a valuable tool to increase social cohesion and quality of life for everyone.

➢ Design for All can contribute to prevent isolation and antisocial behaviours (which sometimes create emergency situations)

➢ To succeed we should not design for the citizens but DESIGN WITH THE CITIZENS.

➢ To prevent mistakes we should not reinvent the wheel but enrich our work with previous experiences from other places and networking.

Francesc Aragall
aragall@designforall.org

Design **Da** for all
FOUNDATION

THANK YOU VERY MUCH

Francesc Aragall

foundation@designforall.org

www.designforall.org

**Subscribe to our Newsletter if you want to be updated on what we do:
www.designforall.org**

Francesc Aragall
aragall@designforall.org

Design **Da** for all
FOUNDATION