

Miniseminar on Accessibility Strategies  
at National and Communal Levels.  
Theory, Tools and Praxis.

## The State of Art of Accessibility Data in Italy: Legislation, Rules, Governance and the Implementation

Paola Bucciarelli | Architect  
4inclusion  
Supporting Human Diversity Through Inclusive Design

Agenzia Regionale della Sanità  
I - Udine, 29 May 2009



1

## Legislation - Italian Accessibility Laws

2

## Italian Accessibility Laws - Background

Due to the evolution of the concept of integration (firstly) and inclusion (now), the notion of accessibility has changed substantially in Italy, as in many industrialized countries.

For many years, rather than tackling the problem in a comprehensive way, details and technical precepts were added to existing regulations over the years; as a result, professionals had problems in identifying solutions while keeping a focus on accessible environments.

The concept of accessibility has changed its meaning over the years, starting with the aim of reducing difficulties for people with impairments (barrier-free design) and currently attempting to make universally-accessible environments usable by everyone (Universal Design design).

3

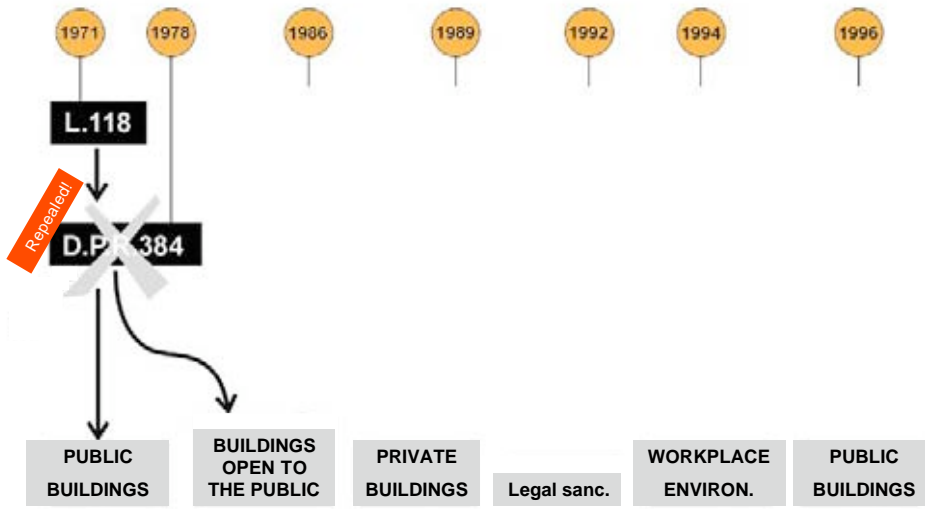
## Italian Accessibility Laws - Background

The Italian word for "accessibility" (*accessibilità*) currently means Universal Design even if its application is different from that in the USA.

Because of its emphasis on renewing and improving existing areas rather than building ex-novo, accessibility in Italy is applied more in the built environment and in difficult design situations (such as historical centers, postwar peripheral neighborhoods, industrial zones undergoing transformation of use, etc.).

4

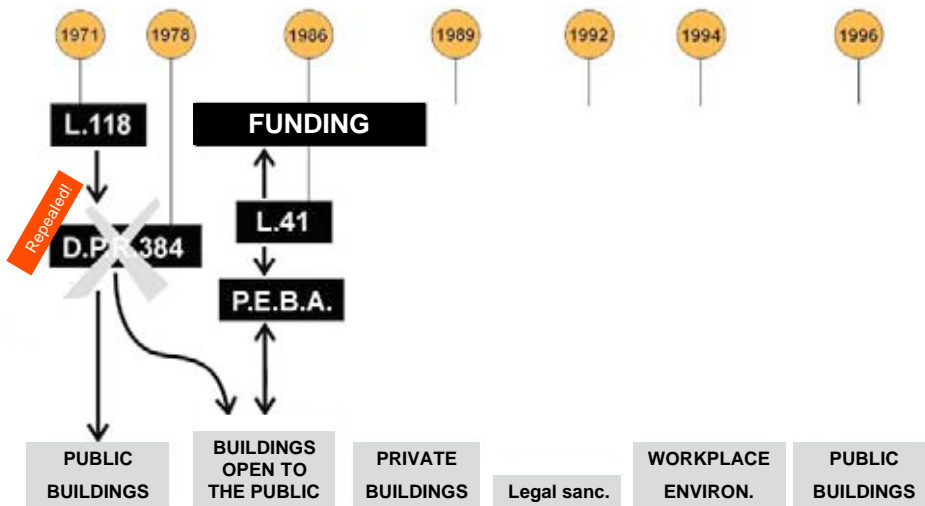
## Italian Accessibility Laws - National Level



on the web: [http://www.hbgroup.it/elsa/norma/dx\\_sinottico.htm](http://www.hbgroup.it/elsa/norma/dx_sinottico.htm)

5

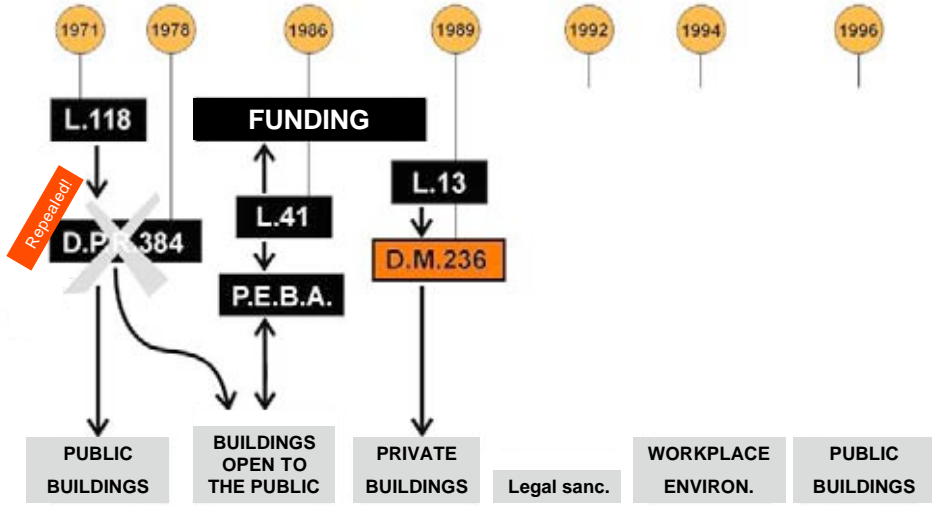
## Italian Accessibility Laws - National Level



on the web: [http://www.hbgroup.it/elsa/norma/dx\\_sinottico.htm](http://www.hbgroup.it/elsa/norma/dx_sinottico.htm)

6

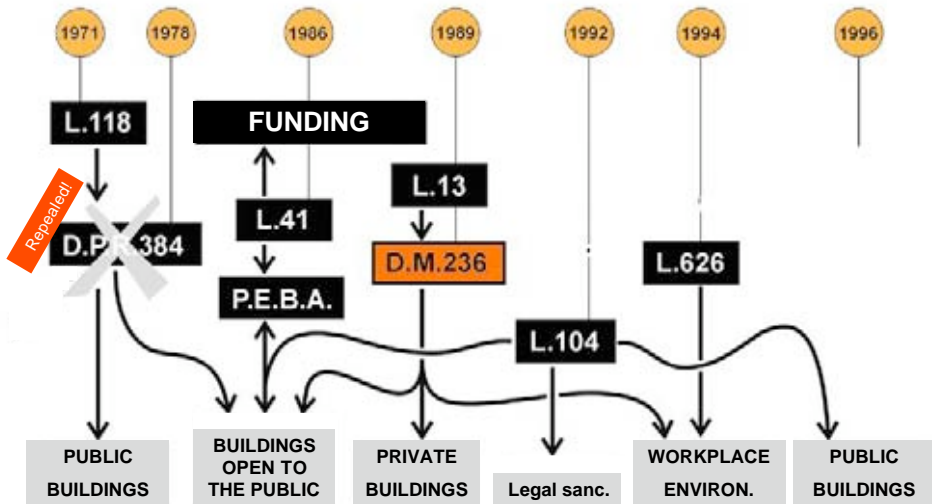
## Italian Accessibility Laws - National Level



on the web: [http://www.hbgroup.it/elsa/norma/dx\\_sinottico.htm](http://www.hbgroup.it/elsa/norma/dx_sinottico.htm)

7

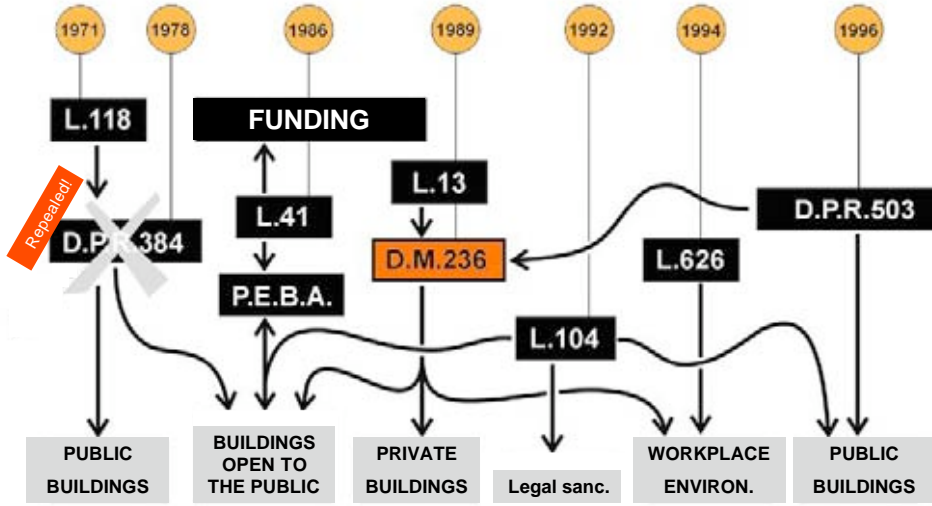
## Italian Accessibility Laws - National Level



on the web: [http://www.hbgroup.it/elsa/norma/dx\\_sinottico.htm](http://www.hbgroup.it/elsa/norma/dx_sinottico.htm)

8

## Italian Accessibility Laws - National Level



on the web: [http://www.hbgroup.it/elsa/norma/dx\\_sinottico.htm](http://www.hbgroup.it/elsa/norma/dx_sinottico.htm)

9

## Italian Accessibility Laws - National Level

### Legge n. 104/1992

"Legge-quadro per l'assistenza, l'integrazione sociale e i diritti delle persone handicappate" (art. 24).

> Inaccessible public buildings and private buildings open to the public must be condemned. It is forbidden to pronounce such buildings as constructions fit for use

> The law provides legal sanctions for all professionals involved in the process of planning and construction of public buildings.

### LEGGI, DECRETI E ORDINANZE PRESIDENZIALI

LEGGE 3 febbraio 1992, n. 104.

Legge-quadro per l'assistenza, l'integrazione sociale e i diritti delle persone handicappate.  
La Camera dei deputati ed il Senato della Repubblica hanno approvato.

IL PRESIDENTE DELLA REPUBBLICA

PROMULGA

7. Tutte le opere realizzate negli edifici pubblici e privati aperti al pubblico in difformità dalle disposizioni vigenti in materia di accessibilità e di eliminazione delle barriere architettoniche, nelle quali le difformità siano tali da rendere impossibile l'utilizzazione dell'opera da parte delle persone handicappate, sono dichiarate **inabitabili e inagibili**. Il progettista, il direttore dei lavori, il responsabile tecnico degli accertamenti per l'agibilità o l'abitabilità ed il collaudatore, ciascuno per la propria competenza, sono direttamente responsabili. Essi sono puniti con l'ammenda da lire 10 milioni a lire 30 milioni e con la sospensione dai rispettivi albi professionali per un periodo compreso da uno a sei mesi.

10

## Italian Accessibility Laws - National Level

### **Legge n. 41/1986**

"Legge Finanziaria"  
(art. 32, comma 20-25).

- > It puts into practice plans for the accessibility of public and urban spaces (P.E.B.A. e P.I.S.U.)
- > It clearly states that funding and concessions from the State or other public bodies will not be granted for those building projects in contrast with accessibility legislation.

11

## Italian Accessibility Laws - National Level - Technical aspects

### **Legge n. 13/1989**

"Disposizioni per favorire il superamento e l'eliminazione delle barriere architettoniche negli edifici privati."

- > It gives the general framework for the interpretation of accessibility precepts.
- > It opens the way to specific technical precepts (see below).

### **D.M. n. 236/1989**

"Prescrizioni tecniche necessarie a garantire l'accessibilità, l'adattabilità e la visitabilità degli edifici privati e di edilizia residenziale pubblica sovvenzionata e agevolata, ai fini del superamento e dell'eliminazione delle barriere architettoniche".

- > It regulates the accessibility, visitability and adaptability of private buildings and private buildings open to the public in both new and refurbished constructions.

### **D.P.R. n. 503/1996**

"Regolamento recante norme per l'eliminazione delle barriere architettoniche negli edifici, spazi e servizi pubblici".

- > It revises all the previous regulations for the removal of barriers in public buildings, spaces and services.
- > It repeals the previous norm regarding public buildings, spaces and services (D.P.R. 384/1978).
- > It refers back to the definition and technical precepts of the D.M. n. 236/1989.

12

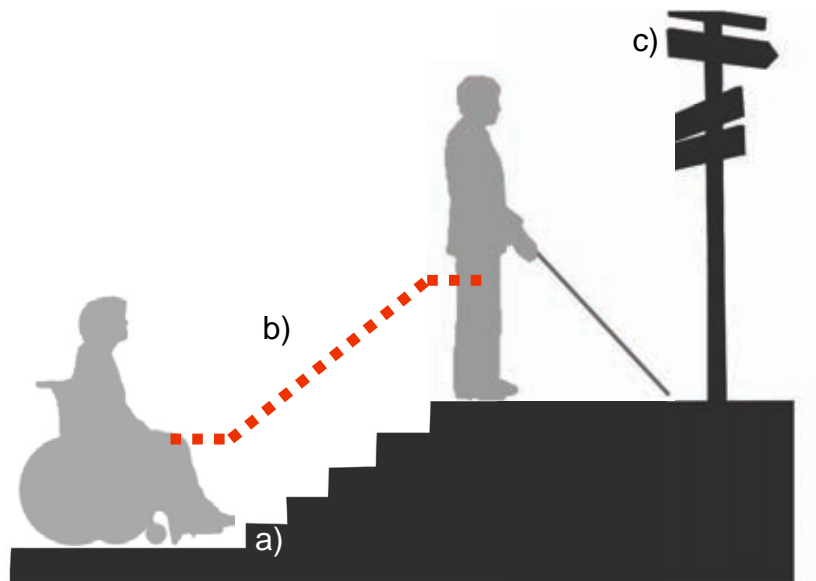
## Italian Accessibility Laws - National Level - Definitions

**D.M. n. 236/1989 and D.P.R. n. 503/1996 adopt the same definition for Architectural Barriers:**

- a. Physical obstacles that are a source of problems for the unhindered mobility of all users, and particularly for people who temporarily or permanently, for any reason, have a limited mobility or loss of mobility
- b. Obstacles that limit or prevent the comfortable and safe use of space, equipment and components
- c. The lack of symbols and signals which, when present, allow way-finding and orientation in places as well as the identification of sources of danger for all users (and particularly for people with visual/hearing impairment or loss)

13

## Italian Accessibility Laws - National Level - Definitions



14

## Accessibility Laws - Implementation

15

## Accessibility in Italy - Implementation

The preceding example makes us understand how an “absolute barrier” or an “absolute facilitator” does not exist.

A barrier’s definition will always depend on a contextual analysis of the functioning/health characteristics of the user as well as the activities that will take place in a given environment.

If we share this point of view and re-read the whole first part of the technical norm (arts. 1-7 dealing with performance) and leave aside the second part (art. 8, regarding dimensions), the norm is perfect!

**Designers tend to read and implement only solutions suggested in the second part (prescriptive/dimensional) that refer almost exclusively to wheel-chair-user needs.**

16



## Accessibility - Implementation

This happens for two main reasons:

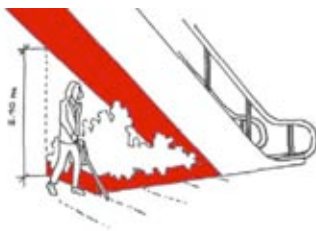
1. Designers haven't received suitable curricular training on this subject (Universal Design)
2. The people responsible for controlling a project and the solutions carried out (and they are not always designers!):
  - haven't received appropriate training on this subject
  - tend to check accessibility only partially and ignore the context and final users of the space
  - tend to check almost always the same things (i.e., dimensions of a bathroom but not the height of the sanitary fittings), often based on precepts of a repealed norm (D.P.R. 384/78)

As a result, many designers comply with the controllers' requests - to the detriment of final users - just to avoid problems.

17

## Accessibility - Implementation

We have effective, clear and complete accessibility laws and well-written and well-illustrated technical manuals for Designers, but the mistakes are always the same...



18

Our laws allow us to design excellent inclusive solutions like this one...

London UK



19

Klagenfurt am Wöthersee, AU



20

Barcelona - Plaza Catalunya



21

But, most of the solutions are similar to this...

Milan, IT



22

Milan, IT



23

Asti, IT



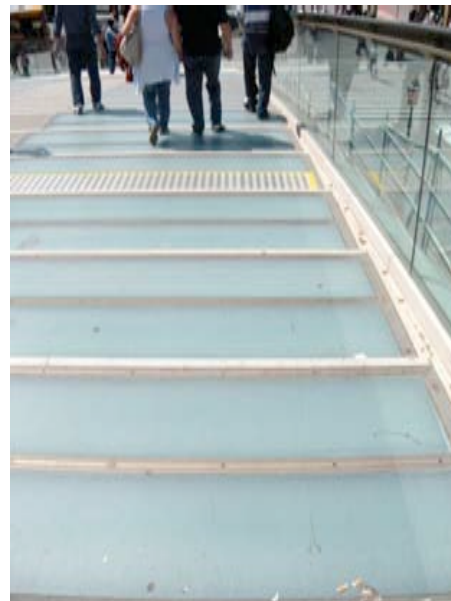
24

Venice, IT



25

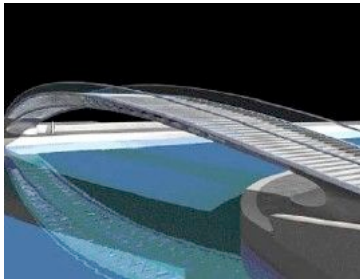
Venice, IT



26



## What is the cost of inaccessibility?



Concerns about the Venice Calatrava Bridge: <http://www.hbgroup.it/calatrava/>

27

Accessibility Laws *per se* are not enough to implement effective inclusive solutions.

But, the first part of the “inclusive revolution” will come to an end when all the precepts of Italian accessibility laws have finally been understood and interpreted in their own logic: that of Universal Design.

28

## Accessibility in Italy - Implementation in praxis

Additionally:

### **Art. 7:**

**7.2** ... alternative suggestions and technical precepts may be put forth by designers as long as they meet the final-user needs.

29

**Tools for Inclusion:  
Convention on the Rights of PwD,  
WHO's ICF,  
Universal Design**

30

## Human Being I Environment

**“(...) a problem truly exists only when it is perceived as such”**

That means:

- 1\_ to perceive the problem
- 2\_ to conceptualize the problem correctly
- 3\_ to find solutions suitable for people according to their rights, needs, preferences and requirements

31

## Universal Declaration of Human Rights (UN, 1948)

Art. 1

«All human beings are born free and equal in dignity and rights.  
They are endowed with reason and conscience  
and should act towards one another in a spirit of brotherhood.»

Art. 27.1

«Everyone has the right freely to participate in the cultural life  
of the community, to enjoy the arts and to share in scientific advancement  
and its benefits.»

32



## Convention on the Rights of Persons with Disabilities (UN, 2006)

### Art. 1

«The purpose of the Convention is to promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity. PWD include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.»

### Art. 9

«To enable persons with disabilities to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to ensure to PWD access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas. These measures, shall include the identification and elimination of obstacles and barriers to accessibility.»

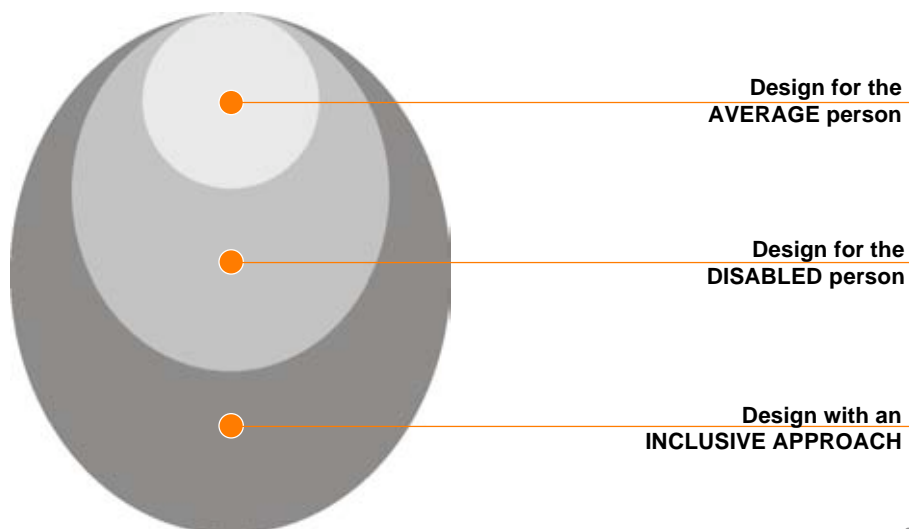
on the web: [www.un.org/disabilities/](http://www.un.org/disabilities/)

33

4i\_z34\_pb\_Miniseminar ARS - Finland / Italy

Paola Bucciarelli - 4inclusion - 29-30 May 2009

## Towards Inclusive/Universal Design



34

4i\_z34\_pb\_Miniseminar ARS - Finland / Italy

Paola Bucciarelli - 4inclusion - 29-30 May 2009

## Towards Inclusive/Universal Design



### Design for the **“AVERAGE PERSON”**

- Idealises usership
- Over-simplifies outlook
- Ignores differences



### Design for the **“DISABLED” PERSON**

- Schematic
- Specialised
- Categorised



### Design with an **INCLUSIVE APPROACH**

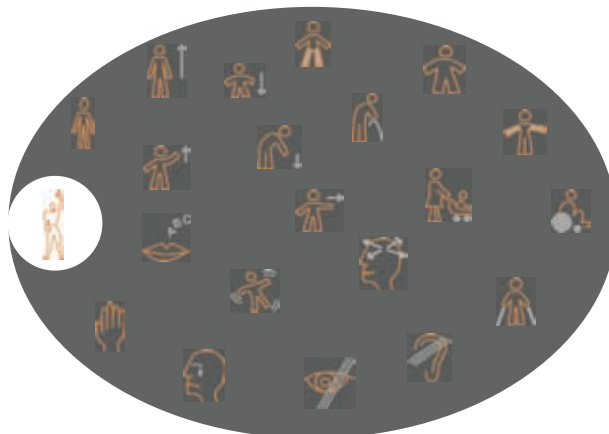
- Valorises differences
- Valorises complexities
- Valorises dynamic processes

35

## Towards Inclusive/Universal Design

Real World

“Standard”  
(average person)



36

## Towards Inclusive/Universal Design



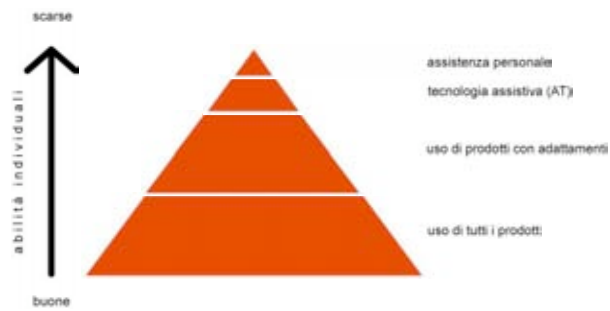
37

## Towards Inclusive/Universal Design



38

## Towards Inclusive/Universal Design



39



40

**Disability is not a world apart...**

**Disability is a part of the world.**

41

## **Disability...**

**«Disability is a difficulty in functioning at the body, person, or societal levels, in one or more life domains, as experienced by an individual with a health condition in interaction with contextual factors.**

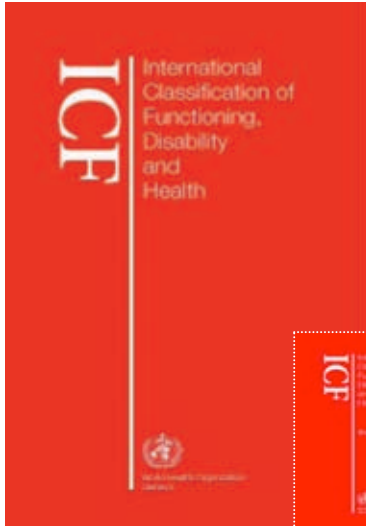
Disability is a state of decreased functioning associated with disease, disorder, injury, or other health conditions, which in the context of one's environment is experienced as an impairment, activity limitation, or participation restriction.

Understanding both the health and the environmental aspects of disability allows for the examination of health interventions that improve functioning as well as interventions to change the environment to improve participation of people with disabilities».

M. Leonardi, J. Bickenbach, T.B. Ustun, N. Kostanjsek S. Chatterji. The definition of disability: what is in a name. The Lancet, Vol 368 October 7, 2006.

42

## The Human Being/Environment Relationship: ICF



ICIDH (1972-1980)  
ICIDH-2 (1993-1997)  
ICIDH-2 - Beta 2 Draft (1997-1999)

### ICF/OMS

(may 2001)

Written and signed by 54 Countries  
(Italy)

Nowadays **191 Countries** identify the ICF as the official instrument for measuring:

- **Functioning**
- **Disability**
- **Health**

of people (not only PWD!)

43

## The Human Being/Environment Relationship: ICF

**ICIDH (1980)**

Impairment  
**Disability**  
Handicap



**ICF (2001)**

Functioning  
**Disability**  
Health

44

## The Human Being/Environment Relationship: ICF

### ICIDH (1980)

**Impairment**  
**Disability**  
**Handicap**



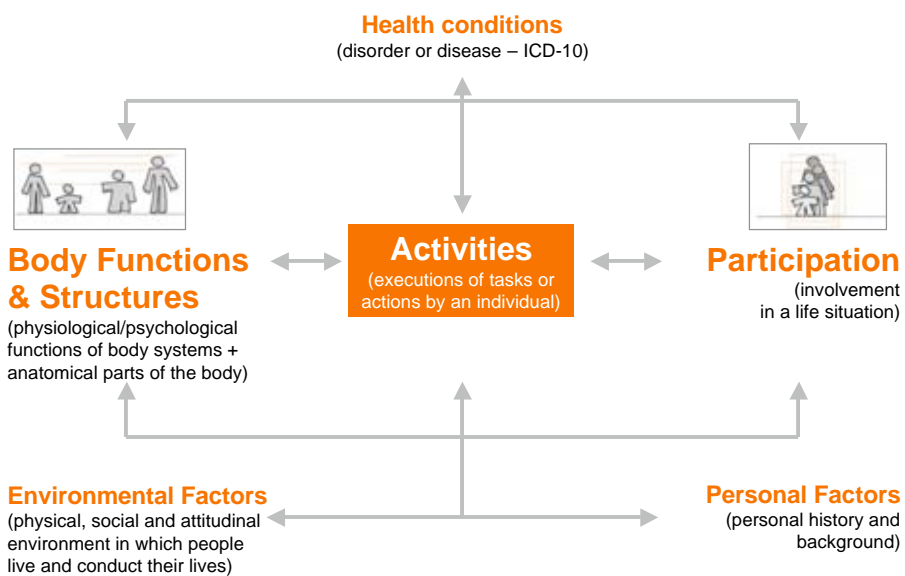
ICF is a multipurpose classification designed to serve various disciplines and different sectors.

AIMS (interrelated):

- to provide a scientific basis for understanding and studying health and health-related states, outcomes and determinants
- to establish a common language in order to improve communication between different users, such as health-care workers, researchers, policy-makers and the public, including people with disabilities
- to permit comparison of data across countries, health care disciplines, services and time
- to provide a systematic coding scheme for health information systems
- to provide a meaningful and practical system that can be used by various consumers for health policy, quality assurance and outcome evaluation in different cultures.

45

## ICF/WHO: Associations among Components



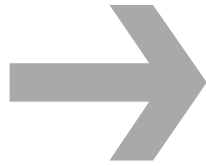
46

## The Human Being/Environment Relationship

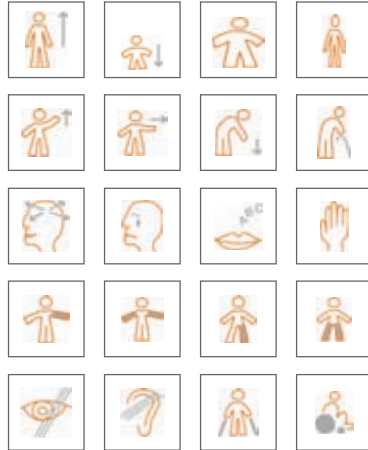
A "generic" human being...



... according to the ICF...

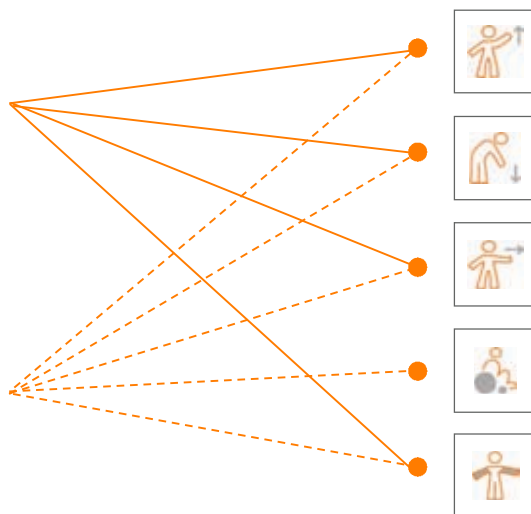


... can be described throughout his/her functional/structural characteristics and activity



47

## The Human Being/Environment Relationship

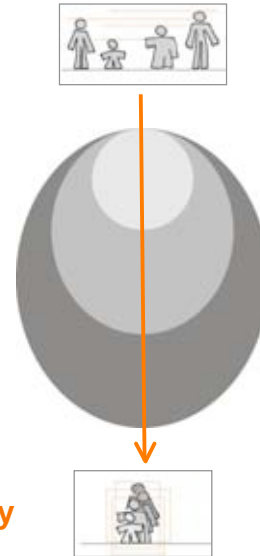


48



## The Human Being/Environment Relationship

- ➔ ICF
- +
- ➔ UN Convention on PwD
- +
- ➔ UD/ID/DfA Approaches  
may lead us to a
- ➔ **more equal and inclusive society**



49

## Universal/Inclusive Design

«Universal design” [\*] means the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.»

[\*] Mentioned also in the UN Convention, arts. 2 and 4

[\*] Also called: Inclusive Design, Design For All, Life-Span Design, Progetto per l’Utenza Ampliata...

**Designing with an Inclusive Approach** means:

- interpreting the complex relationship human being/environment
- providing simple and immediate solutions to the very diverse experiences one encounters throughout life

The Center for Universal Design: [www.design.ncsu.edu/cud](http://www.design.ncsu.edu/cud)

50

# UD principles

- 1. Equitable Use
- 2. Flexibility in Use
- 3. Simple and Intuitive Use
- 4. Perceptible Information
- 5. Tolerance for Human Error
- 6. Low Physical Effort
- 7. Size and Space for Approach and Use

© Copyright 1997- NC State University, The Center for Universal Design.  
The Center for Universal Design (1997).  
The Principles of Universal Design, Version 2.0. Raleigh, NC: North Carolina State University.  
Compiled by advocates of universal design, listed in alphabetical order: Bettye Rose Connell, Mike Jones, Ron Mace, Jim Mueller, Abir Mullick, Elaine Ostroff, Jon Sanford, Ed Steinfeld, Molly Story, and Gregg Vanderheiden.

\*The Principles of Universal Design were conceived and developed by The Center for Universal Design at North Carolina State University. Use or application of the Principles in any form by an individual or organization is separate and distinct from the Principles and does not constitute or imply acceptance or endorsement by The Center for Universal Design of the use or application.

For more information, please contact:  
The Center for Universal Design -  
College of Design - Campus Box 8613 -  
North Carolina State University

The Center for Universal Design: [www.design.ncsu.edu/cud](http://www.design.ncsu.edu/cud)

# Governance

## Governance - PA Particular Features

- Participation
- Negotiation/Negotiating
- Coordination of roles, abilities, activities, tasks
- Duties and Responsibilities
- Transparency (open government)
- Coherency/Consistency
- Policy evaluation

53

## Governance - PA Policies

- Involvement by citizens (group participation)
- Education
- Assessment tools
- Cooperation with national and local stakeholders
- ...

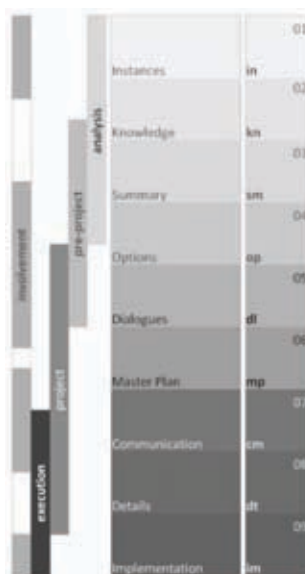
54

## Stumbling Blocks

- The lack of curricular training in UD
- The non-application of existing accessibility legislation
- The isolation of know-how
- The inability to deal with on-going socio-demographical changes in advance
- The lack of a common language among stakeholders
- The lack of an extensive/shared UD culture between the PwD world and that of designers
- The lack of a shared system of principles and criteria in planning and control between technicians and controllers (information and communication gaps)

55

## The NOOS Process



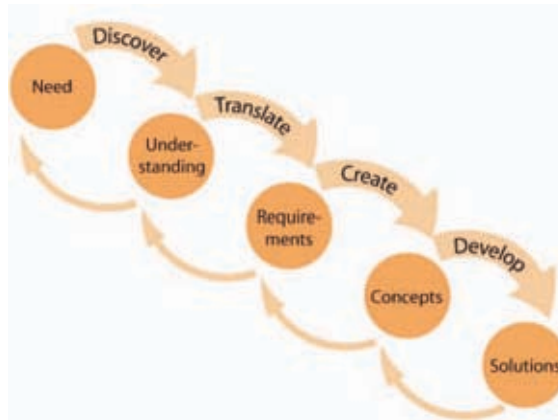
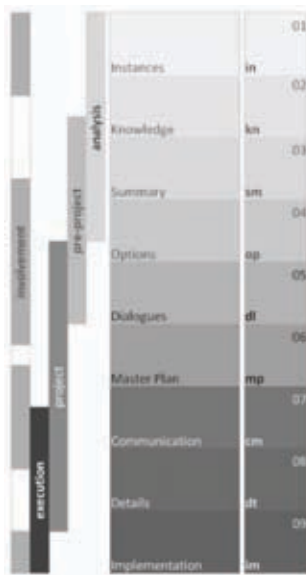
Daniilo Palazzo, *Urban design. Un processo per la progettazione urbana*, Mondadori Università, 2008.

56

Design activities usually follow a **process** characterised by **cycles** and **iterations** «by which solutions are gradually refined through a series of creative leaps or conceptual shifts» (Carmona *et al.*, 2003, p. 54).

While introducing an inclusive design perspective the process became more complex...

## The NOOS Process and a Model of an ID Approach



The Inclusive Design Toolkit: <http://www.inclusivedesigntoolkit.com/>

57

## A “Waterfall” Model of an Inclusive Design Process



**Discover:** The systematic exploration of the perceived need to ensure the right design challenge is addressed, with due consideration of all stakeholders; leading to the first output, an understanding of the real need

**Translate:** The conversion of this understanding into a categorised, complete and well defined description of the design intent; leading to the second output, a requirements specification

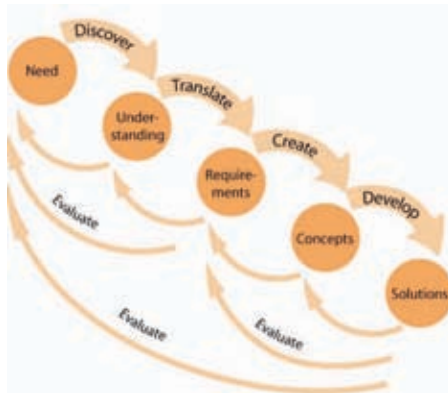
**Create:** The creation of preliminary concepts that are evaluated against the requirements; leading to the third output, concepts.

**Develop:** The design/detailed design of the final solution, ready to be implemented or manufactured; leading to the final output, solutions.

The Inclusive Design Toolkit: <http://www.inclusivedesigntoolkit.com/>

58

## A “Waterfall” Model of an Inclusive Design Process



**Discover:** The systematic exploration of the perceived need to ensure the right design challenge is addressed, with due consideration of all stakeholders; leading to the first output, an understanding of the real need

**Translate:** The conversion of this understanding into a categorised, complete and well defined description of the design intent; leading to the second output, a requirements specification

**Create:** The creation of preliminary concepts that are evaluated against the requirements; leading to the third output, concepts.

**Develop:** The design/detailed design of the final solution, ready to be implemented or manufactured; leading to the final output, solutions.

The Inclusive Design Toolkit: <http://www.inclusivedesigntoolkit.com/>

59

**Good design**

60

## Good design is based on:

### ■ RATIONAL PERCEPTION

- Design & function
- Design & technology
- Design & culture
- Design & economy
- Design & composition
- Design & environment

### ■ COGNITIVE/SENSORY PERCEPTION

- Visual Perception
- Hearing Perception
- Taste & Smell Perception
- Tactile & Haptic Perception
- Spatial & Temporal Perception
- Emotional Perception

UNIVERSAL DESIGN

61

## Antoni Gaudì (1852-1926) - progetti



62

## Antoni Gaudì - Casa Batllò 1905-1907



63

4i\_z34\_pb\_Miniseminar ARS - Finland / Italy

Paola Bucciarelli - 4inclusion - 29-30 May 2009

## Antoni Gaudì - Parc Guell 1900-1914



64

4i\_z34\_pb\_Miniseminar ARS - Finland / Italy

Paola Bucciarelli - 4inclusion - 29-30 May 2009



«Good design enables, whilst bad design disables, irrespective of the user's abilities».

Jim Sandhu

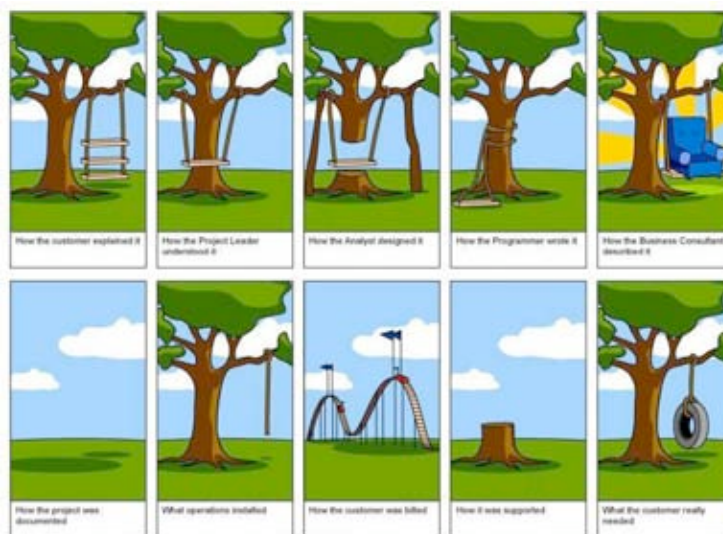


Donald Norman's teapot collections: [http://www.jnd.org/dn.mss/emotion\\_design.html](http://www.jnd.org/dn.mss/emotion_design.html)

65

## Good design...

... when done in a team, needs people to learn to communicate



66

## On the web

67

- **ICF - International Classification of Functioning, Disability and Health (WHO)**  
[www3.who.int/icf/onlinebrowser/icf.cfm](http://www3.who.int/icf/onlinebrowser/icf.cfm)
- **Convenzione ONU sui diritti delle Persone con Disabilità**  
[www.governo.it/GovernoInforma/Dossier/giornata\\_disabilita/convenzione\\_disabili\\_ONU.pdf](http://www.governo.it/GovernoInforma/Dossier/giornata_disabilita/convenzione_disabili_ONU.pdf)  
[www.cnditalia.it/onu.htm](http://www.cnditalia.it/onu.htm)
- **The Center for Universal Design**  
[www.design.ncsu.edu/cud](http://www.design.ncsu.edu/cud)
- **The definition of disability: what is in a name?**  
[http://www.headnetgroup.it/pdf/en/lancet\\_abstract.pdf](http://www.headnetgroup.it/pdf/en/lancet_abstract.pdf)

68



#### **Disclaimer**

Il presente documento è tutelato in ogni sua parte dalle vigenti leggi sul *copyright* e la proprietà intellettuale.

È permesso salvare o stampare copie unicamente per uso privato, strettamente personale. Non è permesso usare o modificare parte o tutte le informazioni riportate per scopi differenti da quello esplicitato, senza l'espreso consenso scritto dell'Autore.

#### **Nota**

La menzione, all'interno del documento, di Enti o di organizzazioni non implica necessariamente che essi siano appoggiati o preferiti ad altri, di simile o analoga natura, non citati in questa sede.

**Paola Bucciarelli | architect**  
e-mail: [p.bucciarelli@4inclusion.eu](mailto:p.bucciarelli@4inclusion.eu)  
[www.4inclusion.eu](http://www.4inclusion.eu)

