Reflections on accessibility and home
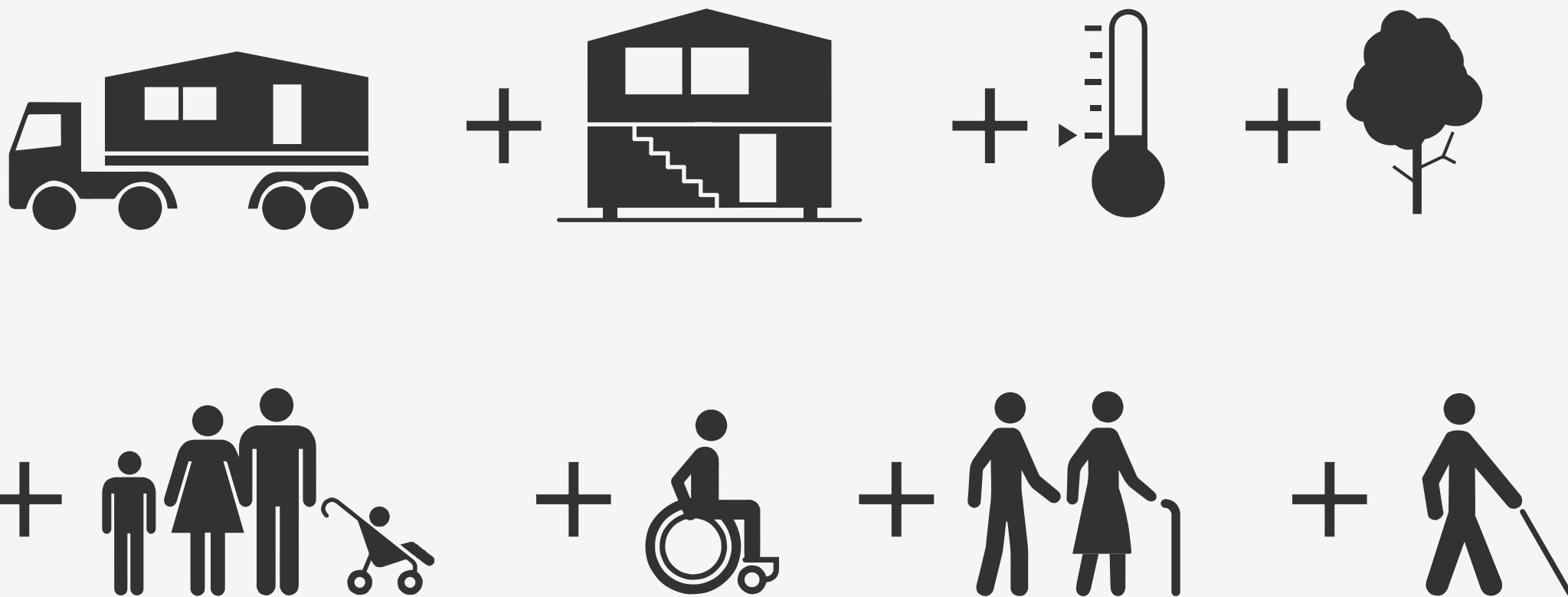
Masterplan: Kiruna, 2014
project plot (red): Studerus, 2014

0   100 m

Universal Architecture in the designer's eye – accessibility, social inclusion, sustainability and usability

Christian Studerus | 28.12.2014 | 1

Concept

rendering: Studerus, 2014

Conflicts

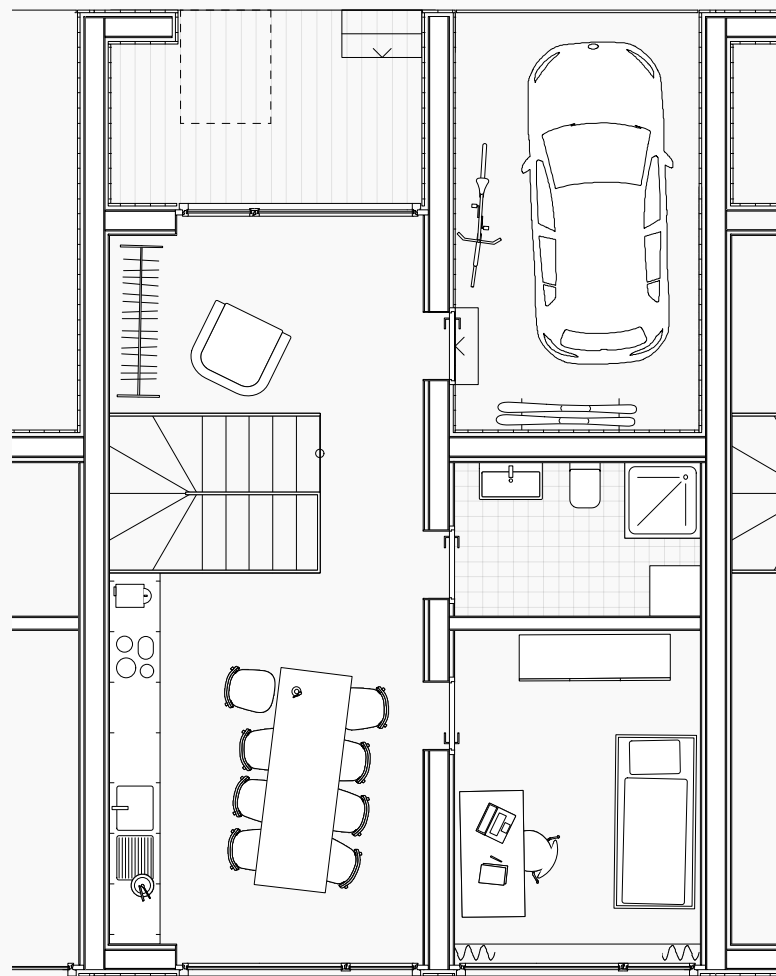basic vectors: The Noun Project, 2014

Conflicts

Flexibility

Oxford Dictionary: the ability to be easily modified

Adaptability

Oxford Dictionary: the ability to be modified for a new use or purpose

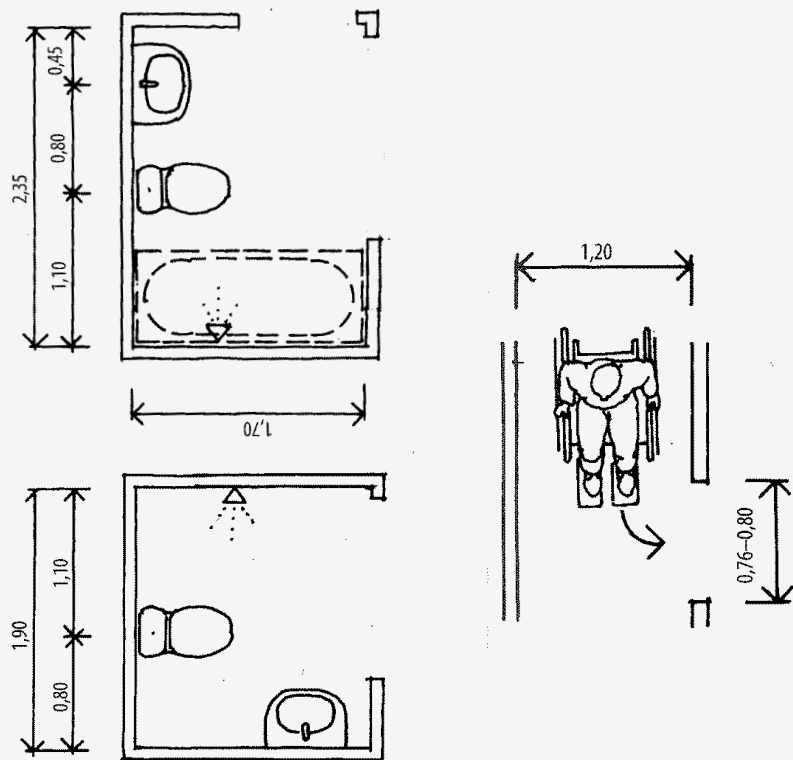# "normal" floorplan

floor plan: Studerus, 2014

0   1 m

107 m²

Ground floor

Top floor
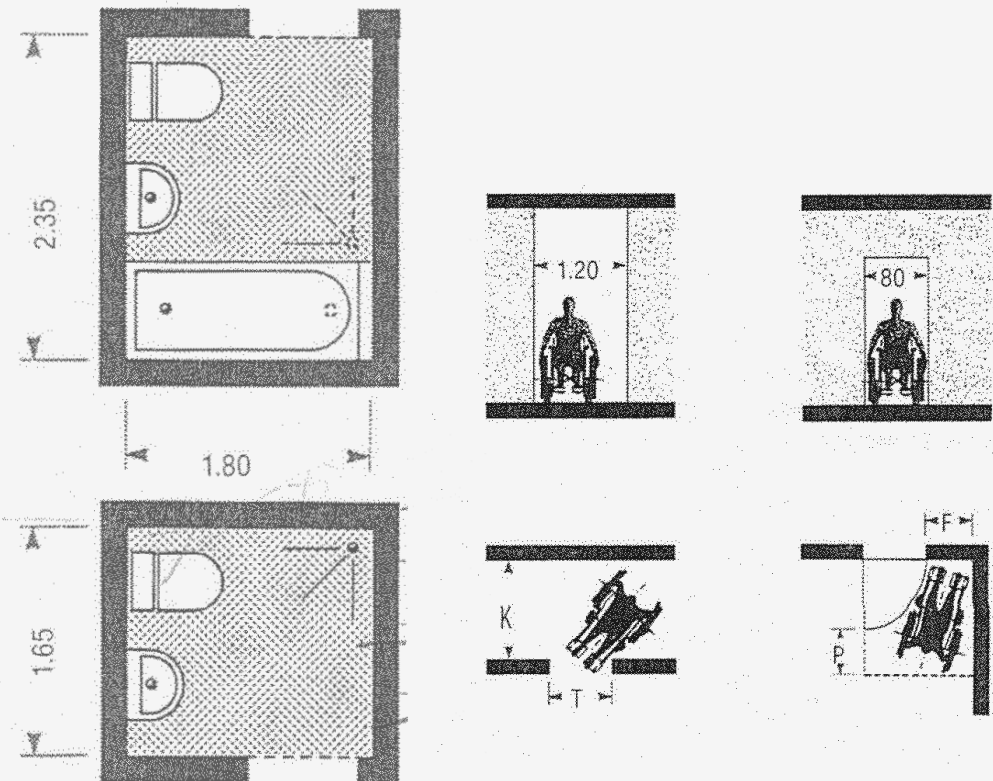
Regulations

- Access, Level differences

- Width of doors and corridors

- minimal room size of bathroom and kitchen

Swedish Norm (bygg ikapp handikapp, 2012)
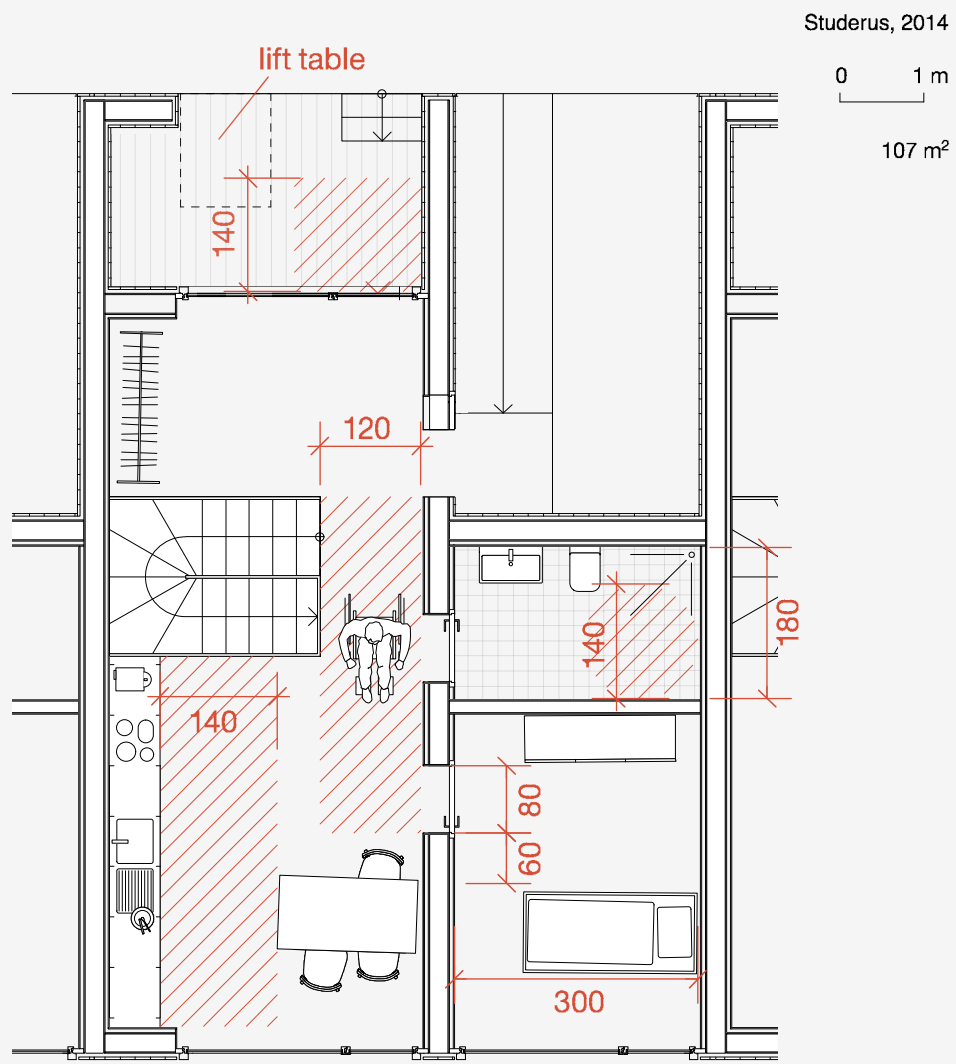
Swiss Norm (SN 521500, 1988)

Regulations

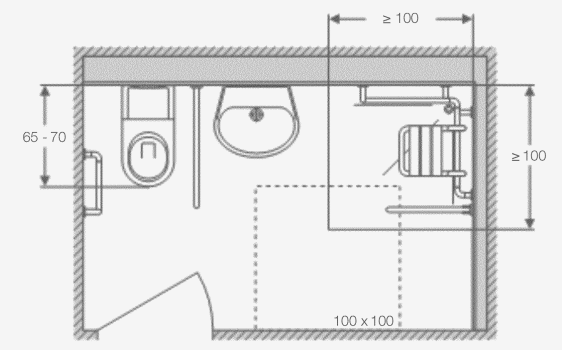just a few regulations have a huge impact on the design

regulations are precise and strict, there isn't any range to decide

they are easy to understand, but often hard to fulfill (architectural concept vs. regulations)
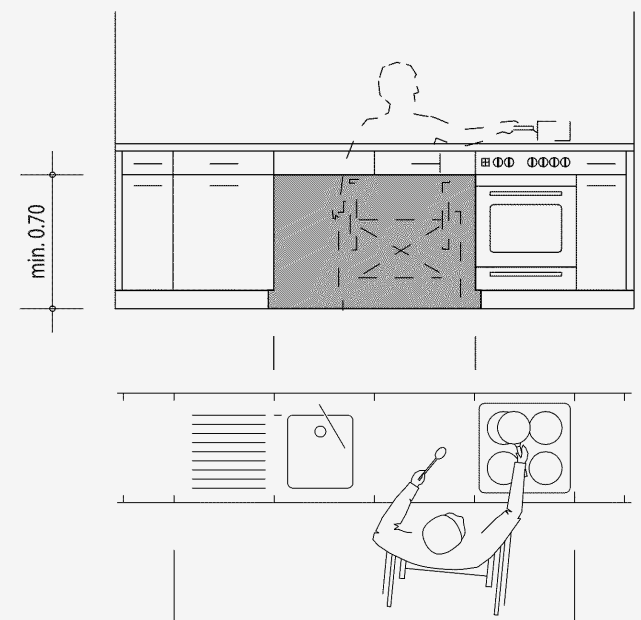
"normal" floorplan

lift table

Studerus, 2014

0   1 m

107 m²

≥ 100

65 - 70

≥ 100

100 x 100

Bathroom (Geberit, 2011)

140

120

140

180

80

60

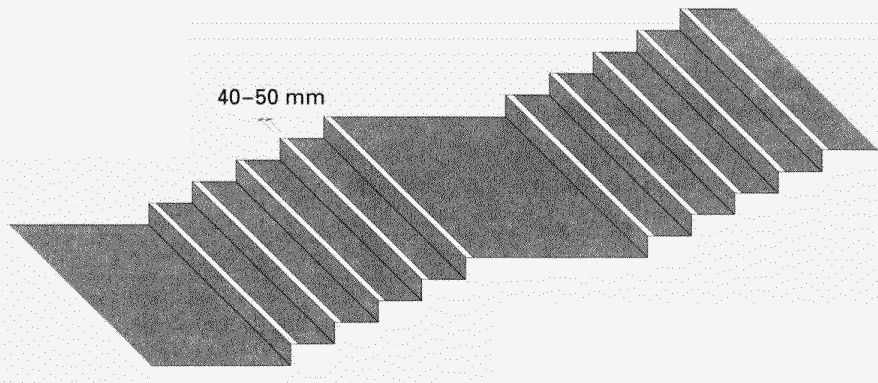140

300

min. 0.70
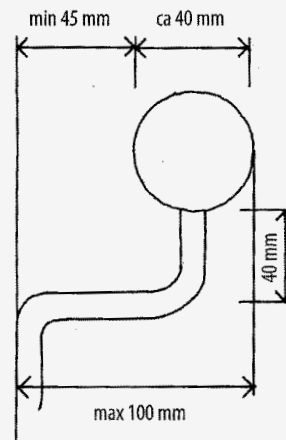
Ground floor

Kitchen (ZHB, 2005)

visual impairment

interventions are more individual

contrasts are important

habit vs. learning

40–50 mm

SIA 500, 2009

min 45 mm   ca 40 mm

40 mm

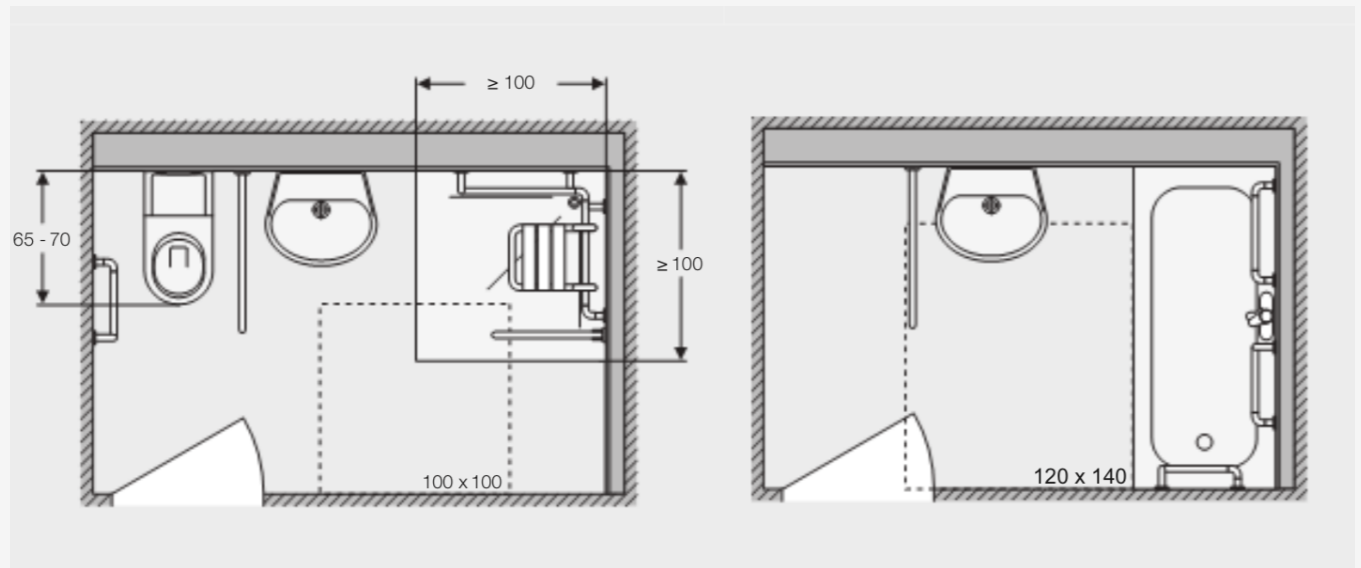max 100 mm

bygg ikapp handikapp, 2012
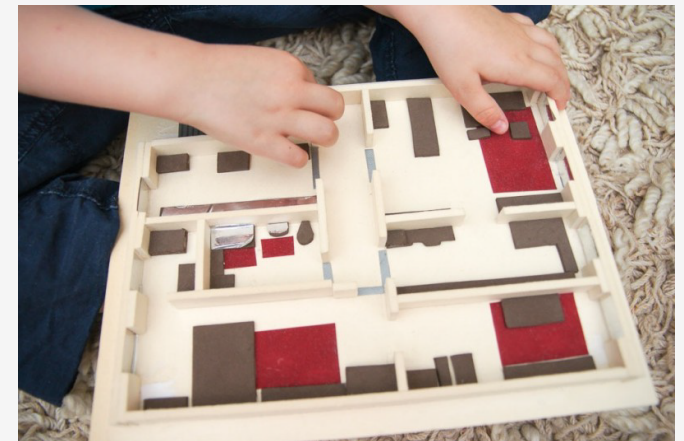
anderes sehen e.v.

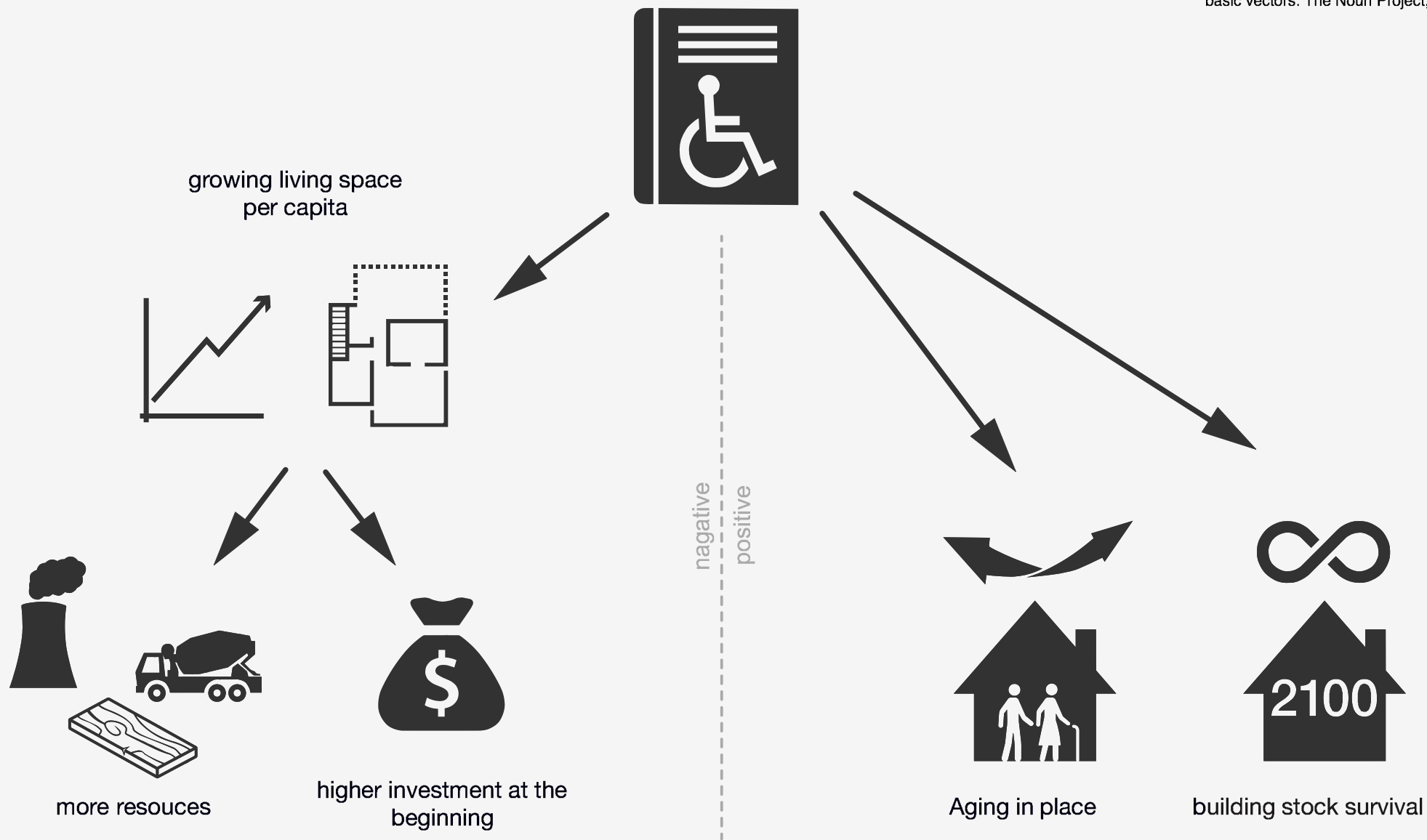# adaptability to personal needs

hygiene spaces, which allow changes in an easy way due to changes in the users' lifestyle, and mainly without changing the floor plan and installations
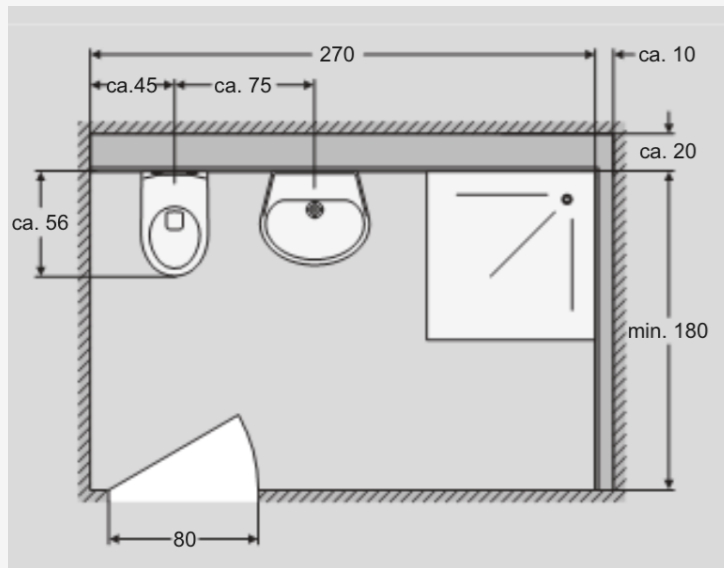
Geberit, 2011

Consequences

basic vectors: The Noun Project, 2014

growing living space per capita

nagative | positive

more resouces

higher investment at the beginning

Aging in place

building stock survival

2100

Conclusion

Current trends in modern architecture imply solving accessibility and usability in a normative way by detailed guidelines. However, these are based on minimal width and minimal room size, which could block a necessary awareness by the designer to create accessibility and usability.

Rules on accessibility and usability have a major impact on architectural designs, but how strict should these rules be? Perhaps, the matters could be associated with a cost-benefit thinking in a life course perspective, since aware design solutions create a long-term accessible architecture. That's why accessibility and usability is really a matter of adaptability and flexibility according to various user needs. This thinking does not only influence the architectural design, but also installation techniques and welfare technologies.

References

Geberit: "Planungshandbuch Sanitär" 2011

SIA (Swiss Society of engeneers and architects): "SIA 500 Hindernisfreie Bauten" 2009

Kiruna kommuns arbetsgrupp för Utvecklingsplanen: "Stadsplan" Utvecklingsplan. 2014

Studerus: "Shfting Ground" Midterm Presentation, Studio 8, KTH School of Architecture. 2014

Studerus: "Shfting Ground" Final Presentation, Studio 8, KTH School of Architecture. 2014

The Noun Project: URL: http://thenounproject.com [state 2014]

Svensk byggtjänst: "bygg ikapp handikapp" 2012

Swiss Norm "SN 521500 Behindertengerechtes Bauen" 1988

ZHB: "Hindernisfreie Bauten" 2005