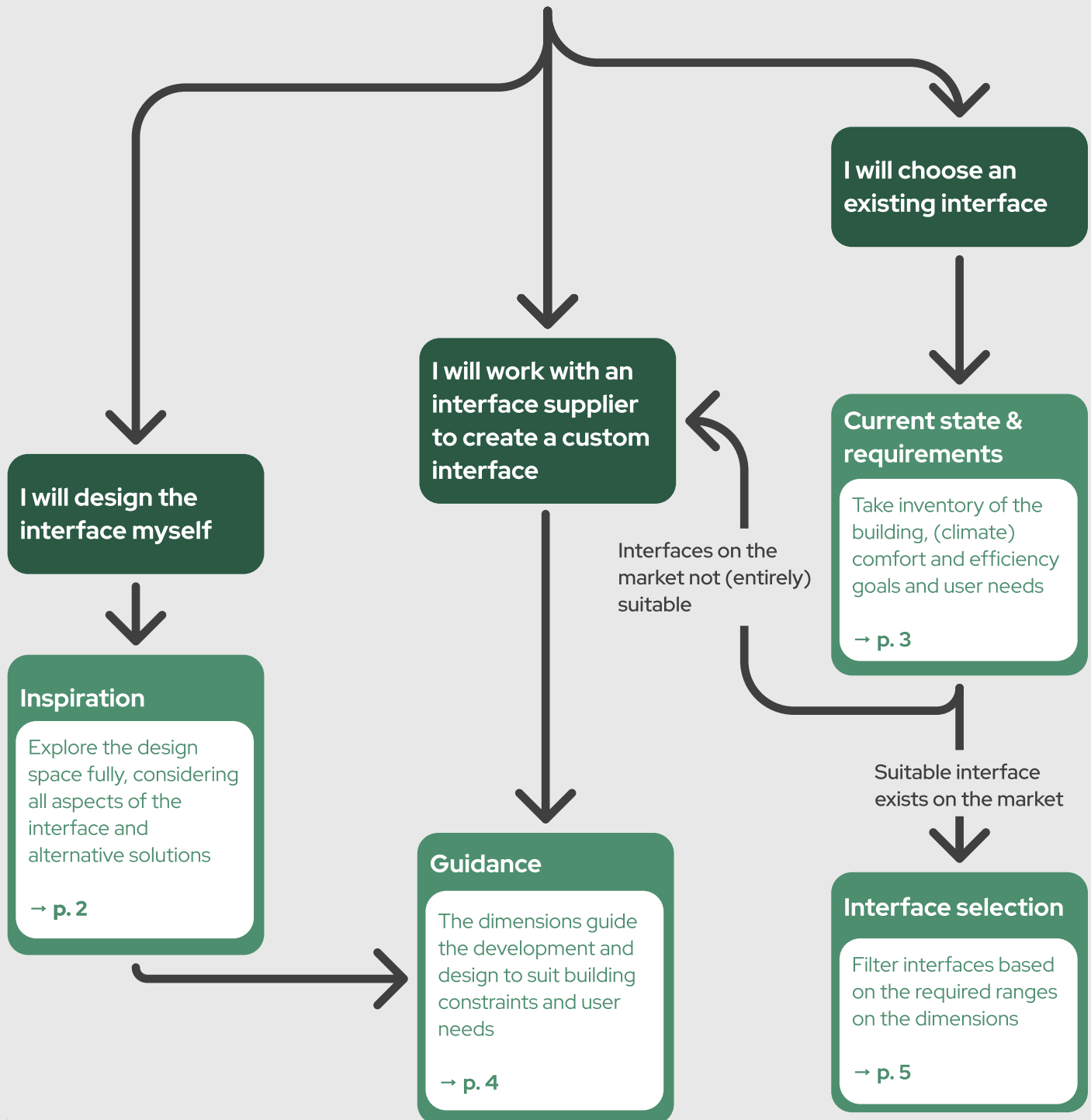


So you need an interface for Smart Building Climate Control...



Speaking the same language

Ensure mutual understanding of goals and needs throughout the entire process
→ p. 6

The “dance” between occupant and climate control system

The design dimensions provide structure for decision making so as to create a balance between occupant actions and needs, and the climate control systems response and anticipation. Since the dimensions are not prescriptive by themselves, evaluating design choices with users is imperative to make sure the chosen direction has the desired effect on the climate and occupant experience.

Quick start guide

Material

- Filled-in design dimensions sheet
- Generative/ideative design methods

How to

During divergent, explorative design phases use the marks on the dimensions as starting points. Experiment with various choices and alternatives to expand the design space and learn whether the chosen design dimension settings suit the user needs and technical possibilities.

Especially useful for

UI/UX designer & developers, architects, engineers

Scope design choices

Instead of one fixed mark on the dimensions, try marking a range, opening up possibilities. At the same time, this range should provide you with enough boundaries to spark creative solutions.

Seeking out “extremes”

Are initial ideas or requirements leaning towards one end of a dimension? How would the interface change after “flipping” the dimension to the other extreme?

Does it still meet user needs and climate system requirements? Which “extreme” of the slider results in an interface that benefits **the dance** between occupant and building?

Exploring alternatives

Use the dimensions as sliders that result in different design characteristics to come up with alternative concepts. For example, explore what would change when adding portable controls to an initially static design. Will other dimensions have to compensate for this change? What changes in the user experience?



Current state & requirements

↑ Back

Quick start guide

Material

- Empty [design dimensions sheet](#)

How to

Inspect the current system and interface either during a physical walk-through or by discussing plans, photos and screenshots and involve all types of stakeholders to gain an in-depth overview of the problems, loved features, wishes and needs of all humans involved in the use, (re-)design and implementation of the climate control system.

Especially useful for

Facility manager, building owner, UI/UX designer & developer, interface supplier

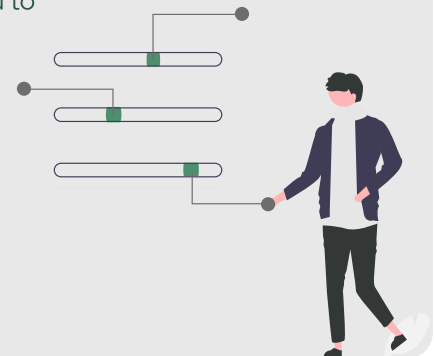
Holistic

When using the dimensions to map the current state of the building, climate system and interfaces, you make sure that all aspects relevant to the (new) interface are taken into account.

Take inventory together

Include the point of views of all user groups when taking stock of the current state, and discuss needs and wishes for a potential re-design. The filled-in dimension sheet should be part of any requirements list.

This way, it can be used to align the interface with the goals and needs throughout its development and implementation.



Quick start guide

Material

- Filled-in design dimensions sheet
- Convergent design methods

How to

Regularly evaluate whether the interface you are developing still matches the selected points on the dimensions. This is particularly useful when there are many ideas and a direction needs to be chosen. When the dimensions were filled in with or based on user input, they allow for quick decision making throughout the design process, without having to test with users for every detail.

Especially useful for

UI/UX designer & developer

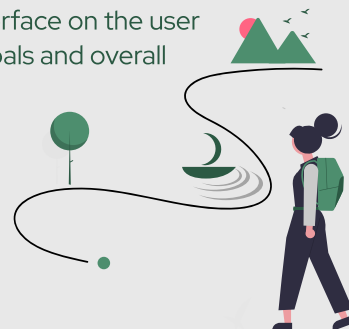
Support design decisions

The dimensions can provide guidance particularly during the convergent phases of the design process, when decisions need to be made and the design/solution space needs to be (re-)defined. It is also a useful tool when evaluating and testing interfaces, as well as when moving towards implementation to make sure the design fits the system and occupants.

Evaluate & test

The dimensions are a useful tool when testing interfaces. Use them to evaluate the effect of specific aspects of the interface on the user experience, (efficiency) goals and overall dynamic.

When moving towards implementation, use the dimensions to make sure the design fits the system and occupants.



Interface selection

↑ Back

Quick start guide

Material

- Filled-in design dimensions sheet
- Collection of available interfaces
- Requirements & technical documentation of building & climate system

How to

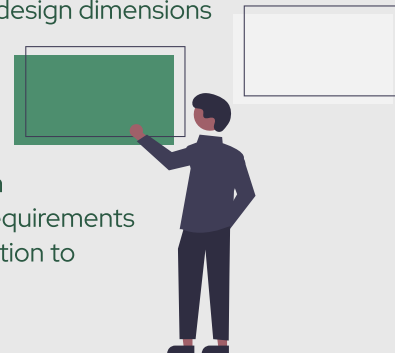
Supplement your usual approach for selecting interfaces with the properties selected on the dimensions. Compare available interfaces to the “goal” properties, to determine which best suits the building, its context and users.

Especially useful for

Building owner, facility manager, engineer/technician

Collect, compare, select

After collecting interfaces that may be suitable, compare them using the design dimensions to see which ones match the pre-defined climate goals and user needs best. The dimensions can and should be used in combination with other requirements and technical documentation to ensure feasibility as well.



No suitable interface on the market?

Considering most buildings and their climate control systems have unique properties and use cases, it's possible there's no suitable ready-to-use interface on the market that meets all requirements and dimension goals. Consider working with an interface supplier to customize aspects of an existing interface to better match your building.

Speaking the same language

[↑ Back](#)

Quick start guide

How to

Use the design dimensions and their descriptors when communicating with others involved in the interface selection, design, development and/or implementation.

Especially useful for

All relevant stakeholders

Introduce terms early on

Share the dimensions and their descriptors early on when working with different stakeholders to avoid confusion later on.

More time for the important decisions

When everyone involved agrees on the terms for discussing different aspects of the interface and climate system, more time can be dedicated to discuss more important choices.



Control

Form

medium

analog

digital

how much is controlled digitally or via physical elements

portability

static

portable

whether the interface is location-specific or mobile

Agency

perception

actual

perceived

how closely does the range of control match the actual control users can exert?

balance

occupant

system

who or what has the "last say"

Resolution

starting point

is the climate controlled relative to its current state or in absolute terms

relative

absolute

granularity

fine

coarse

control can be accurate or fuzzy

distribution

individual

group

control can be exerted by a single person or shared between a group of people

Feedback

Transparency

status

advice

impact

what's currently going on?

what could users do?

what are the effects of choices

Content

target

user actions

environment

what the feedback is triggered by or targeted at

scope

specific

holistic

feedback can be narrowed down or all-encompassing

Form

detail

low

high

how specific the feedback is described

engagement

reactive

pro-active

feedback can be given on demand or pro-actively

frequency

low

high

how often feedback is given

visual

haptic

auditory

what you can see

what you can feel

what you can hear