

Designing for Digital Transparency in the Public Realm: Design Guide



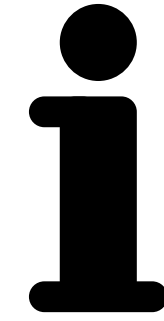
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We're proud to present our first draft of the purpose icons. Each icon was carefully crafted and selected to help you understand the most common question around technology in the public realm – What's the purpose?

We decided to use the most simple and globally understandable symbols to help users understand somewhat complicated technologies.

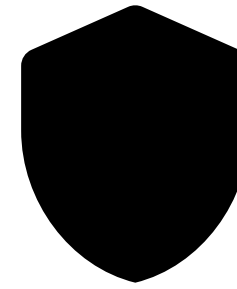
Information



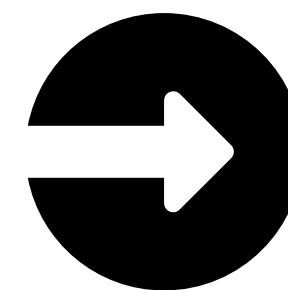
Waste Management



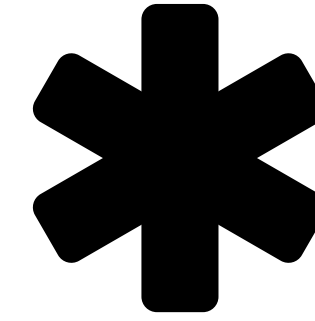
Security



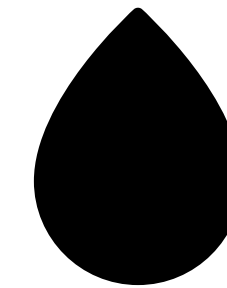
Access



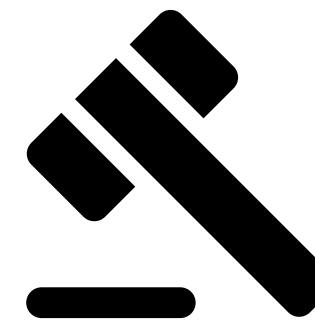
Emergency



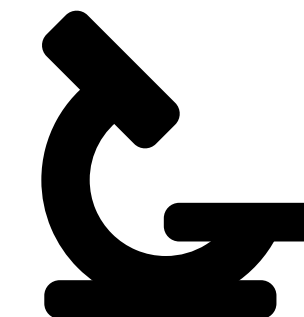
Water Efficiency



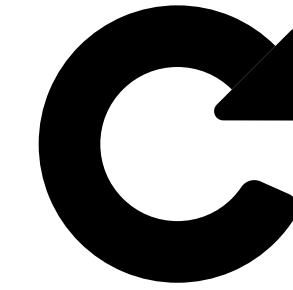
Enforcement



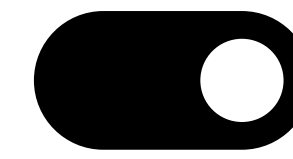
Research & Development



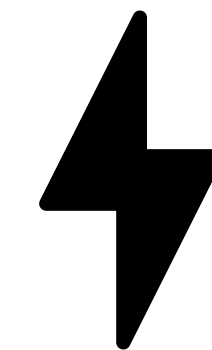
Mobility



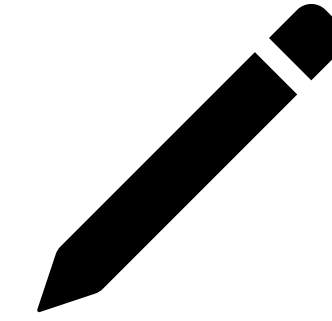
Switch



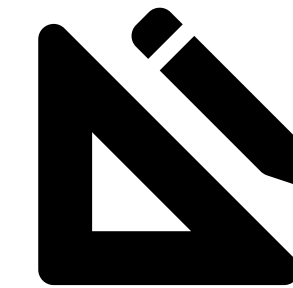
Energy Efficiency



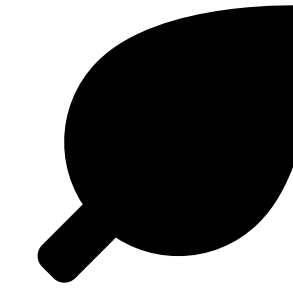
Agency



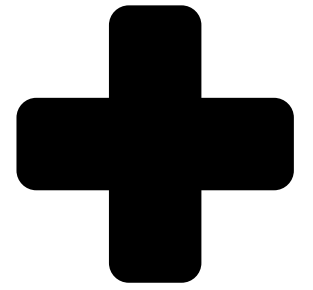
Planning



Ecology



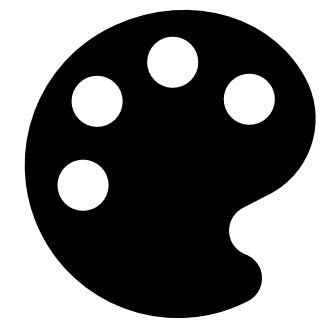
Health



Accessibility



Arts & Culture



[→ Download the Icons](#)

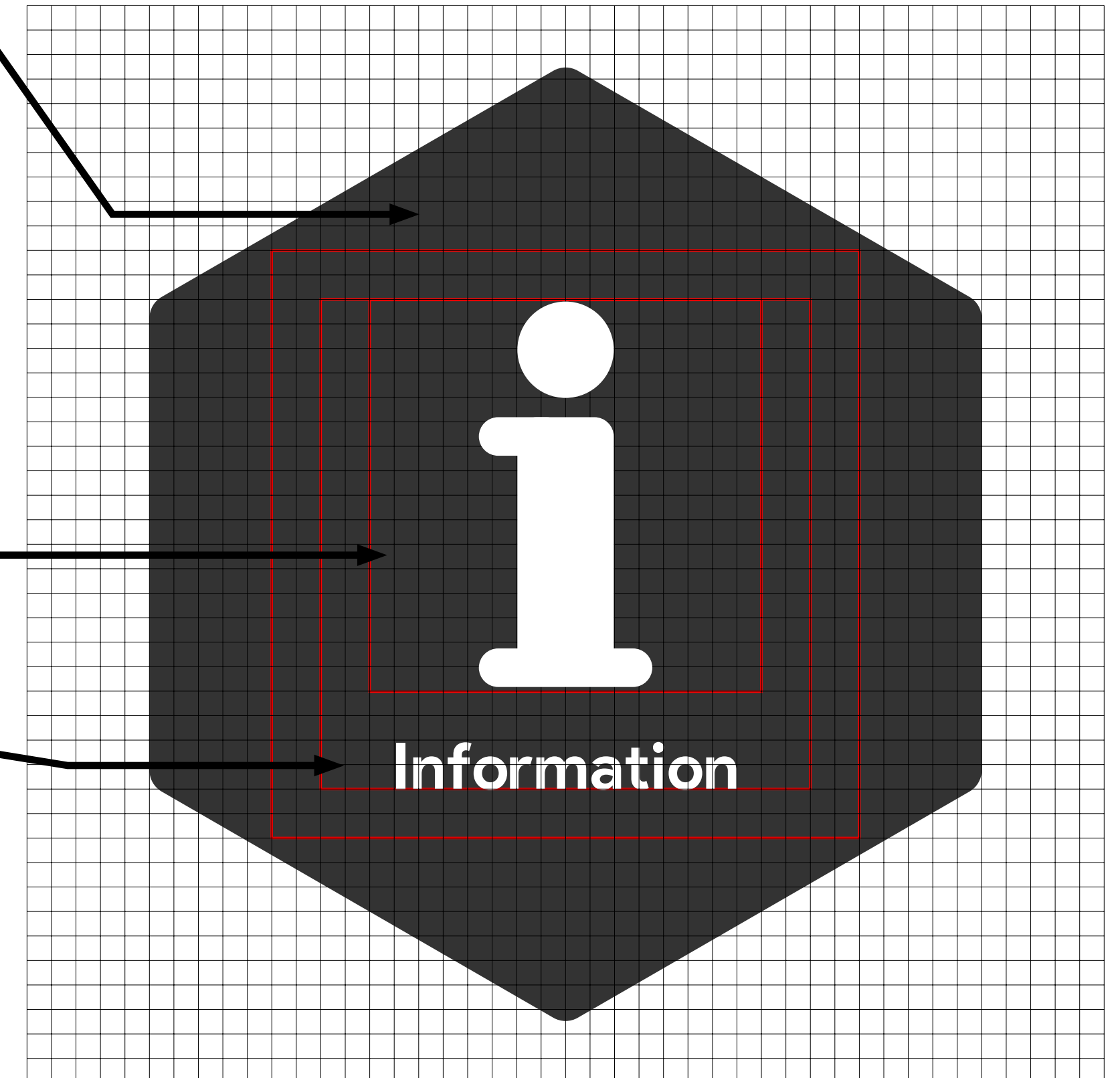
When considering how the public will adopt the icons, we needed to think about signage. We learned from our signage research that shape, colour and typography all play a role in how we take information away from a sign. We came to a few conclusions.

I. The shape should be a hexagon. We chose the hexagon because this perfect shape that occurs naturally is the most efficient way to fill a space with the least amount of material. It's currently unused in our vocabulary of signage shapes and slightly resembles a stop sign - giving users a slight 'Hey, check this out' without forcing a stop. And lastly, the hexagon has ties to technology enthusiasts. We hope for a world where this shape becomes synonymous with technology in the public realm.

II. The signs should be black and white. These are mostly informational signs that don't require a call to action.

III. Typography is a necessary tool. Throughout our research it became apparent that typography is still an important part of signage. The icons alone are not yet enough to communicate sometimes complicated technologies. Editable text within the signage file will allow users to adapt to multiple languages and/or change to their preferred brand font.

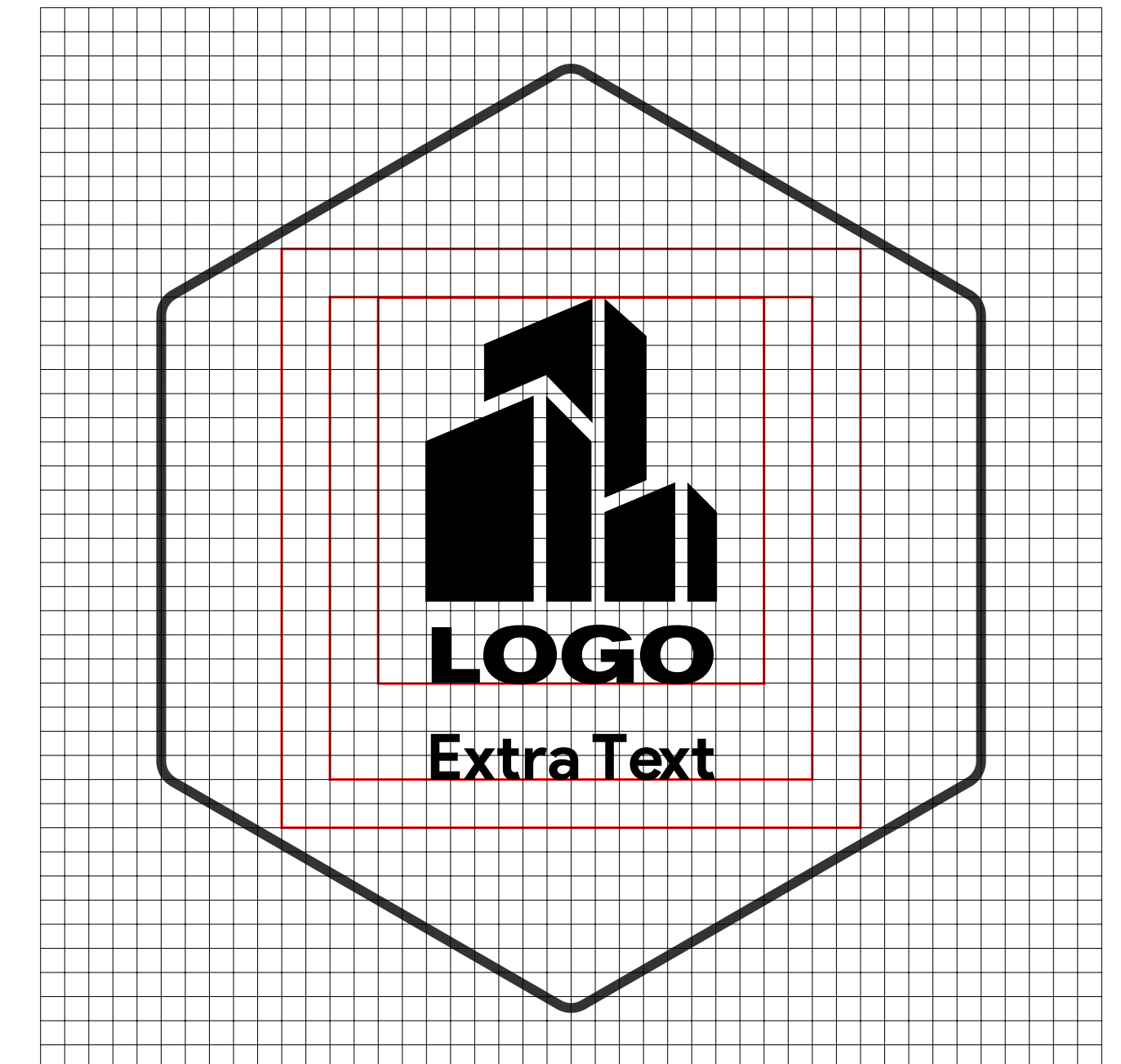
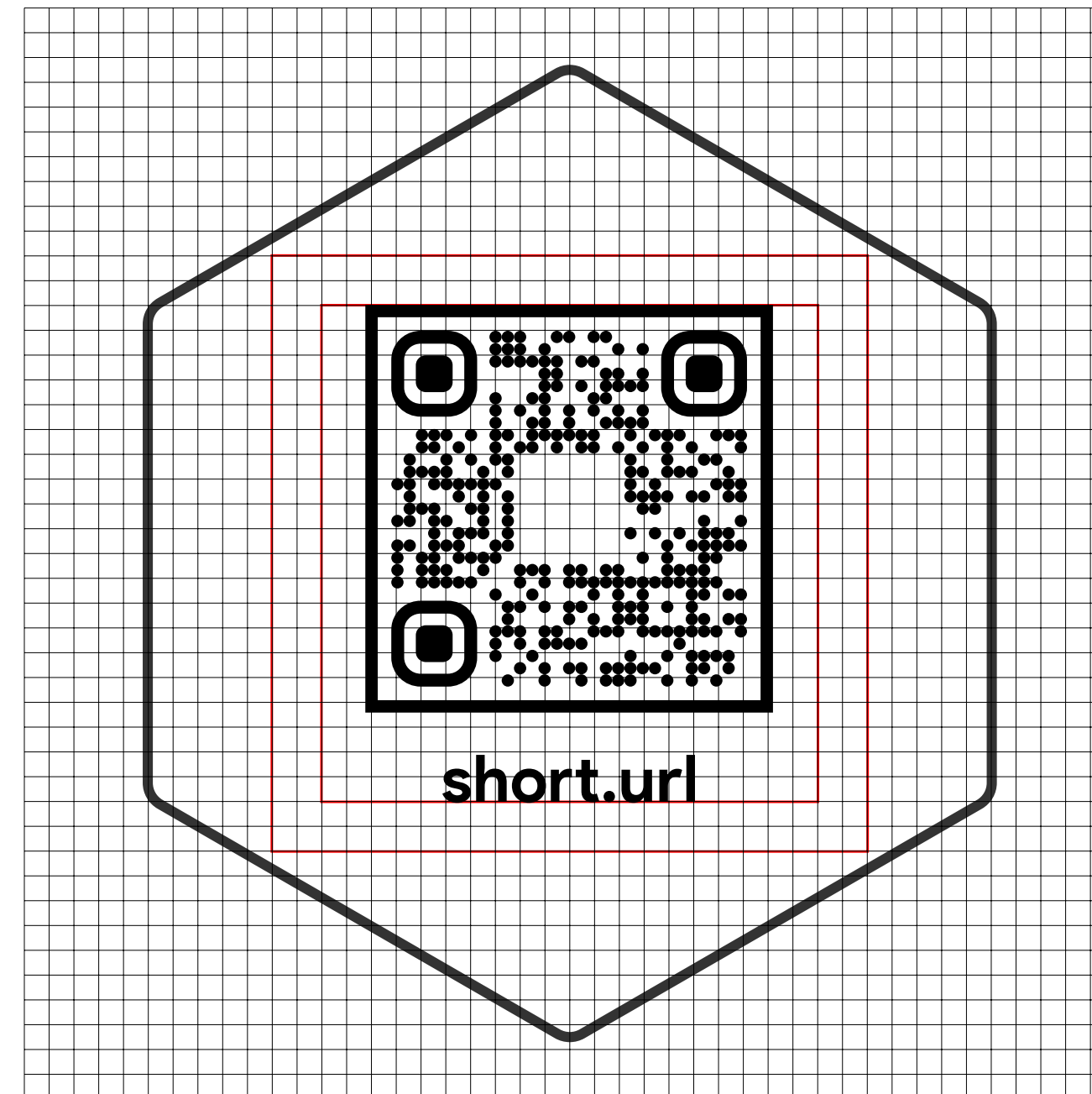
You can use these guidelines to apply icons within hexagons, but to get you started, we've created design templates here.



The logo and QR code signs both follow the same usage principles as the purpose icons. Content should stay within the guidelines, leaving enough room for text. You can find these templates within the design toolkit.

Each file also allows you to add your own text to the sign. For the QR code sign, we suggest adding a short URL for those without QR technology on their phone. For the logo sign, we suggest an additional line for contacting that organization. This could be a phone number, email, website or social media handles.

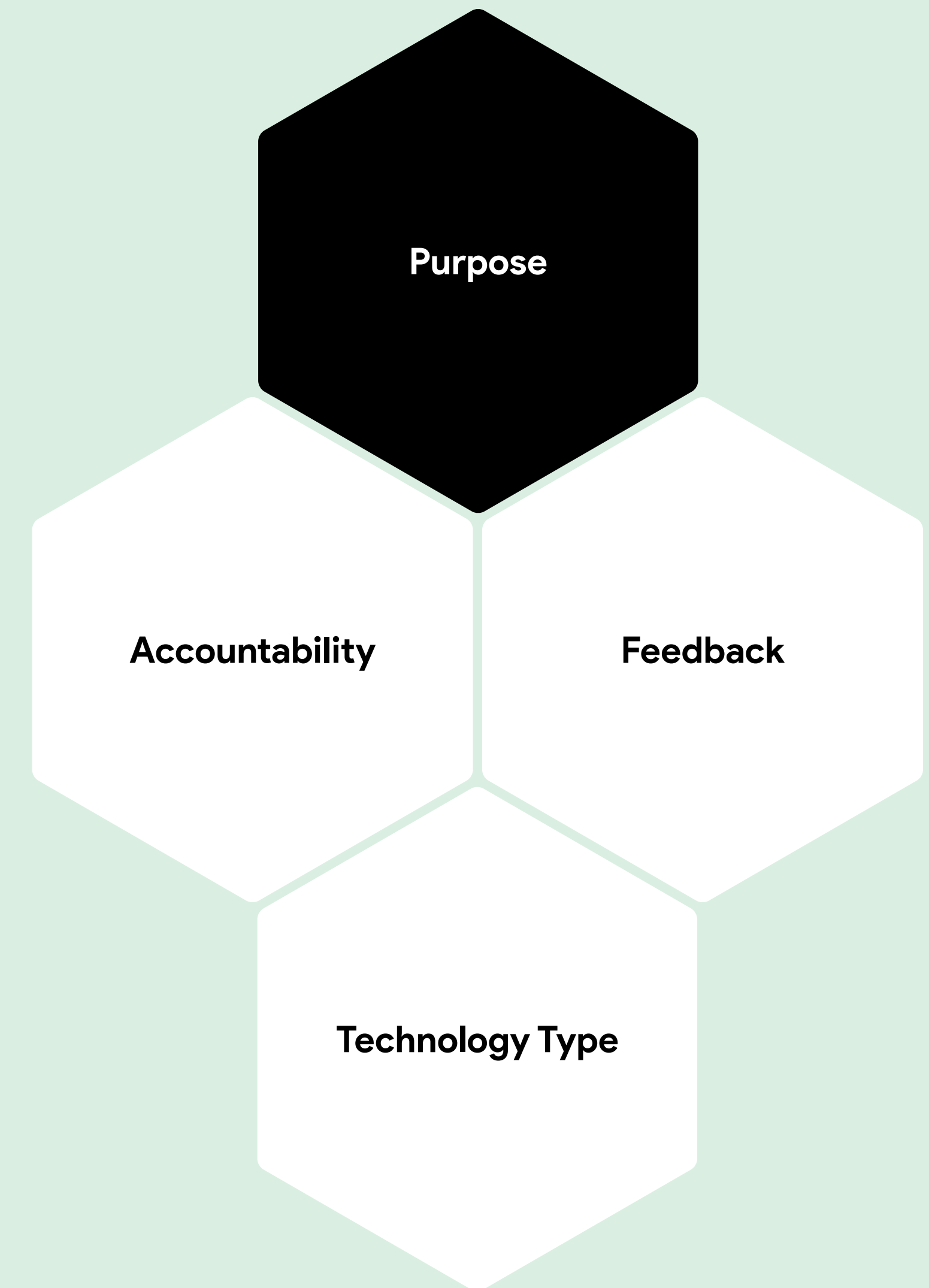
QR codes should be a minimum of 2”.



We've created three usage samples to help you understand how signage would be applied to different scenarios, and how colour and data type icons play an essential role in the signage system.

We found through the research that there were 3 core concepts we wanted to convey in the signs: the purpose, the accountable entity, and whether the technology collects identifiable information. We also decided to place these icons within a hexagon to convey that there is technology at work - and they also happen to easy to combine together in different ways. These hexagons are used together to convey these 3 concepts. You can even apply them to your existing signs.


The QR code provides a link to the digital channel where people can follow-up and learn more. We're currently working on a system to make the QR code easy to generate, so stay tuned for that.



Example 1. IR Motion Sensor

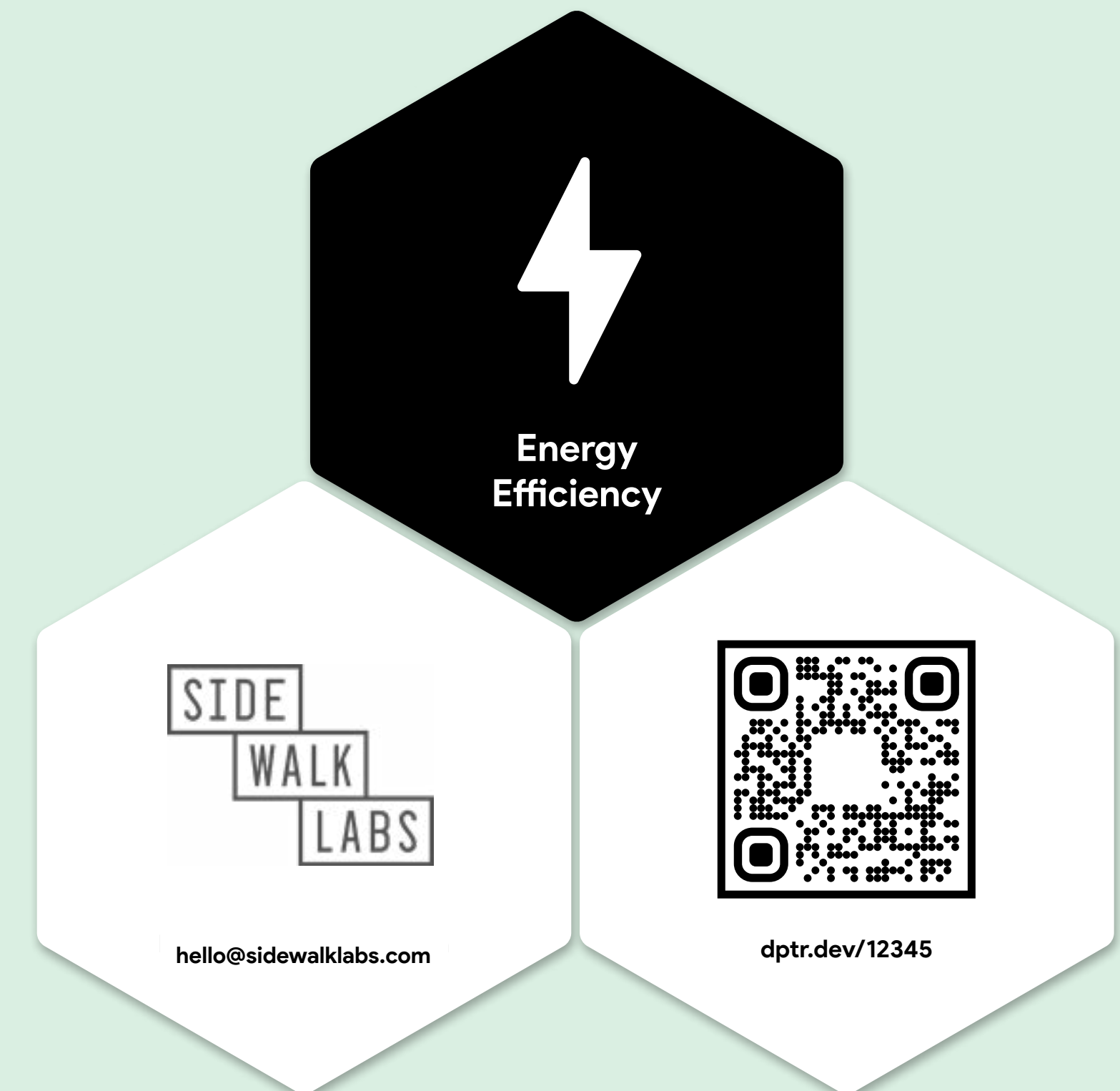
This is an example of how the hexagon shapes come together to communicate a message. This particular sign is communicating that there is an Infrared Motion Sensor in the area. Infrared motion sensors do not collect identifiable data, so there's no Technology Type icon.

For adoption and education purposes, we've added a descriptor sign beside the hexagon signs. This important addition will help people understand this new visual language as it's being applied in the real world. The descriptor sign should take on the graphic identity of your organization (colour, typographic, graphics).

 **IR Motion Sensor**

These icons are intended to convey the data collection activities underway for an energy efficiency pilot here at 307. Sidewalk Labs is collecting non-identifiable data on occupancy using infrared sensors to detect movement in different areas in order to optimize heating and cooling in the space based on usage and other data. Metrics are collected which are stored indefinitely in the USA. Data is accessed only by the third party service provider and Sidewalk Labs


If you have any questions contact hello@sidewalklabs.com



Example 2. Numina

This example follows the same rules as the first, but with the addition of a new rule.

The Numina sensor processes data in a particular way that's important for the general public to understand. The sensor does in fact capture low-resolution images but they are de-identified by blurring potentially identifiable information before storage. This important distinction of "de-identified before first use" is represented with the colour blue. further clarify the nature of the data collection, we've added a technology type hexagon to help you understand exactly what is being captured. In this case, the technology type is "de-identified image".

 **Numina**

These icons convey the data collection activities underway for the Numina pilot.

De-identified data for planning and research purposes is collected in this area for Sidewalk Labs to measure how visitors move around and engage with our exhibits and prototypes inside 307. Images are collected which are immediately processed on-device to create non-identifiable pedestrian movement and count data, which is retained for five years. A low-resolution sample image is collected once every hour for calibration and data validation purposes, and are de-identified by blurring potentially identifiable information. Low-resolution sample images are not shared with anyone except Numina (the vendor) and are retained for 30 days.

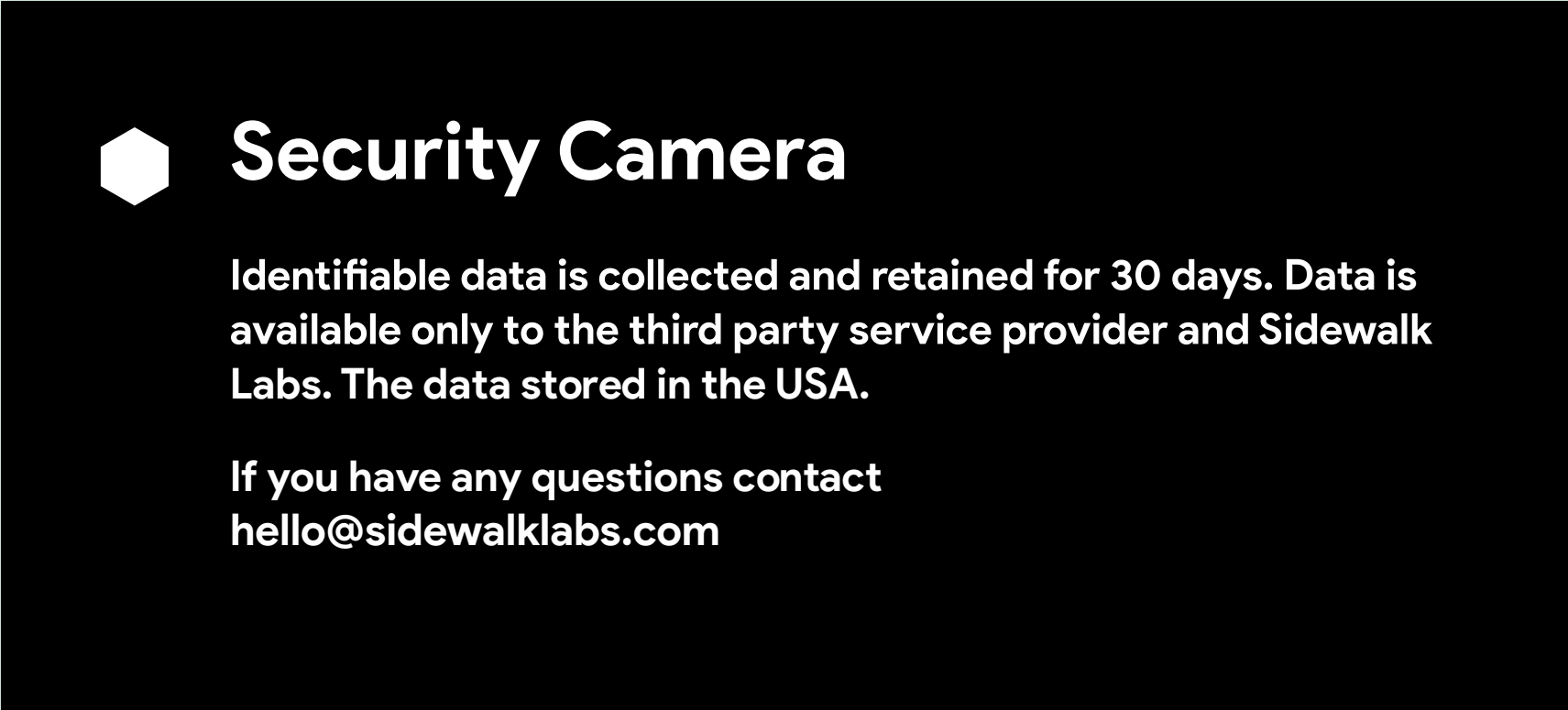
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Example 3. Security Camera

This final example adds an additional colour rule to the sign system.

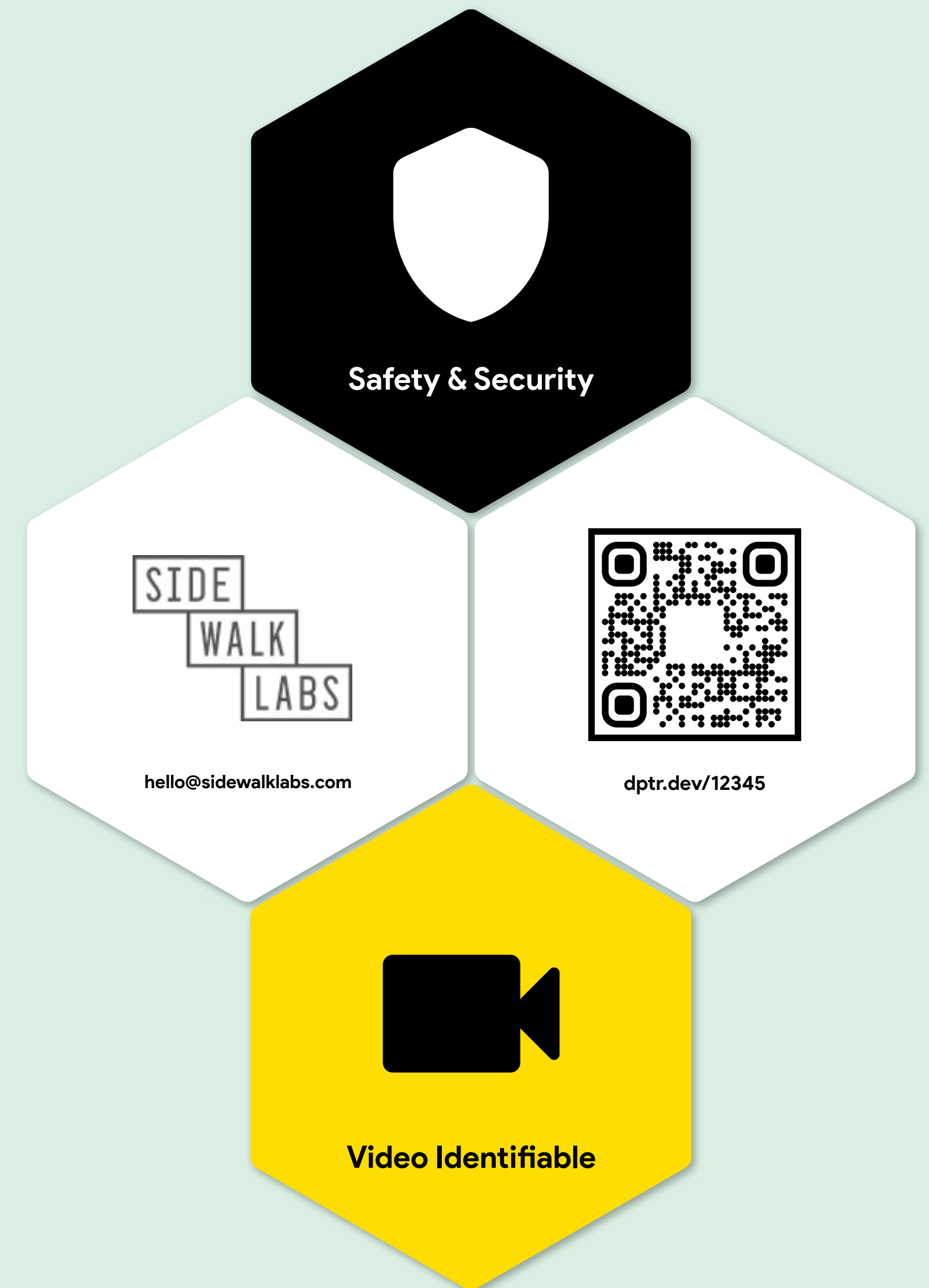
The camera in this scenario is capturing identifiable video. We're representing this important distinction with the colour yellow, a colour that's globally recognizable as 'warning'.



 **Security Camera**

Identifiable data is collected and retained for 30 days. Data is available only to the third party service provider and Sidewalk Labs. The data stored in the USA.

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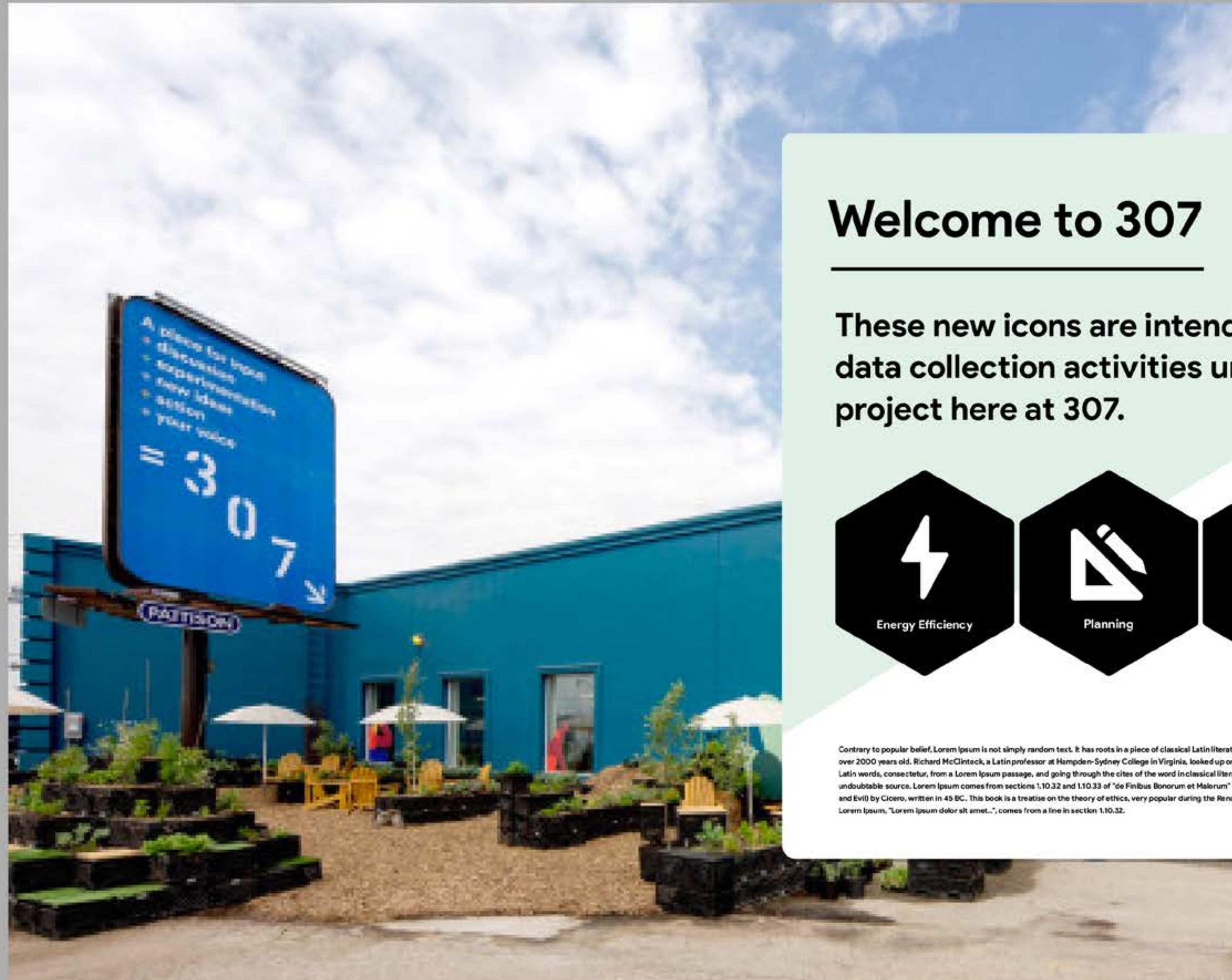


Placement of the icons will vary based on the context, and through implementing the icons we will be better able to develop guidelines on how they should be placed and installed in the public realm.

Here is an example of a minimal placement of the digital transparency in the public realm icons.



Examples of how the icons can be incorporated into existing signage.



Welcome to 307



These new icons are intended to convey the data collection activities under way for pilot project here at 307.



Contrary to popular belief, Lorem Ipsum is not simply random text. It has roots in a piece of classical Latin literature from 45 BC, making it over 2000 years old. Richard McClintock, a Latin professor at Hampden-Sydney College in Virginia, looked up one of the more obscure Latin words, consectetur, from a Lorem Ipsum passage, and going through the cites of the word in classical literature, discovered the undoubtable source. Lorem Ipsum comes from sections 1.10.32 and 1.10.33 of "de Finibus Bonorum et Malorum" (The Extremes of Good and Evil) by Cicero, written in 45 BC. This book is a treatise on the theory of ethics, very popular during the Renaissance. The first line of Lorem Ipsum, "Lorem ipsum dolor sit amet...", comes from a line in section 1.10.32.

We want your feedback!
Visit dptr.dev/1234 and tell us what you think.

Through our research, we also heard that people want to know when they are entering an area where technologies are embedded in the public realm. The icons can also be used to identify a general area.

Sensors in the Area



Lorem ipsum dolor sit amet, consectetur
adipiscing elit. Praesent sollicitudin metus
molestie, vulputate sapien id, egestas nulla.



Energy Efficiency



Safety & Security



Waste
Management



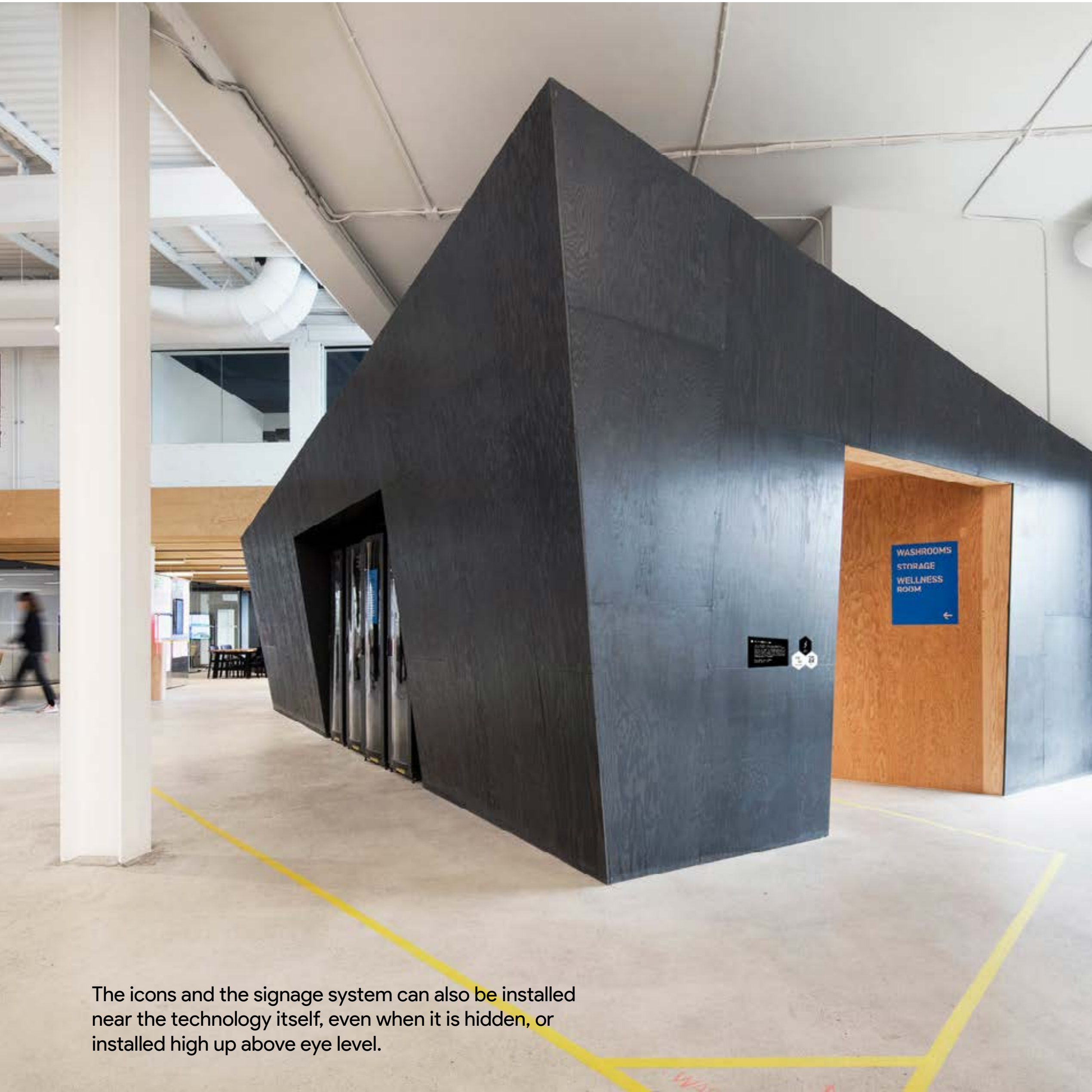
Ecology



Questions? Concerns? Call 411.



Another example of how the icons can be
used in existing signage.



The icons and the signage system can also be installed near the technology itself, even when it is hidden, or installed high up above eye level.





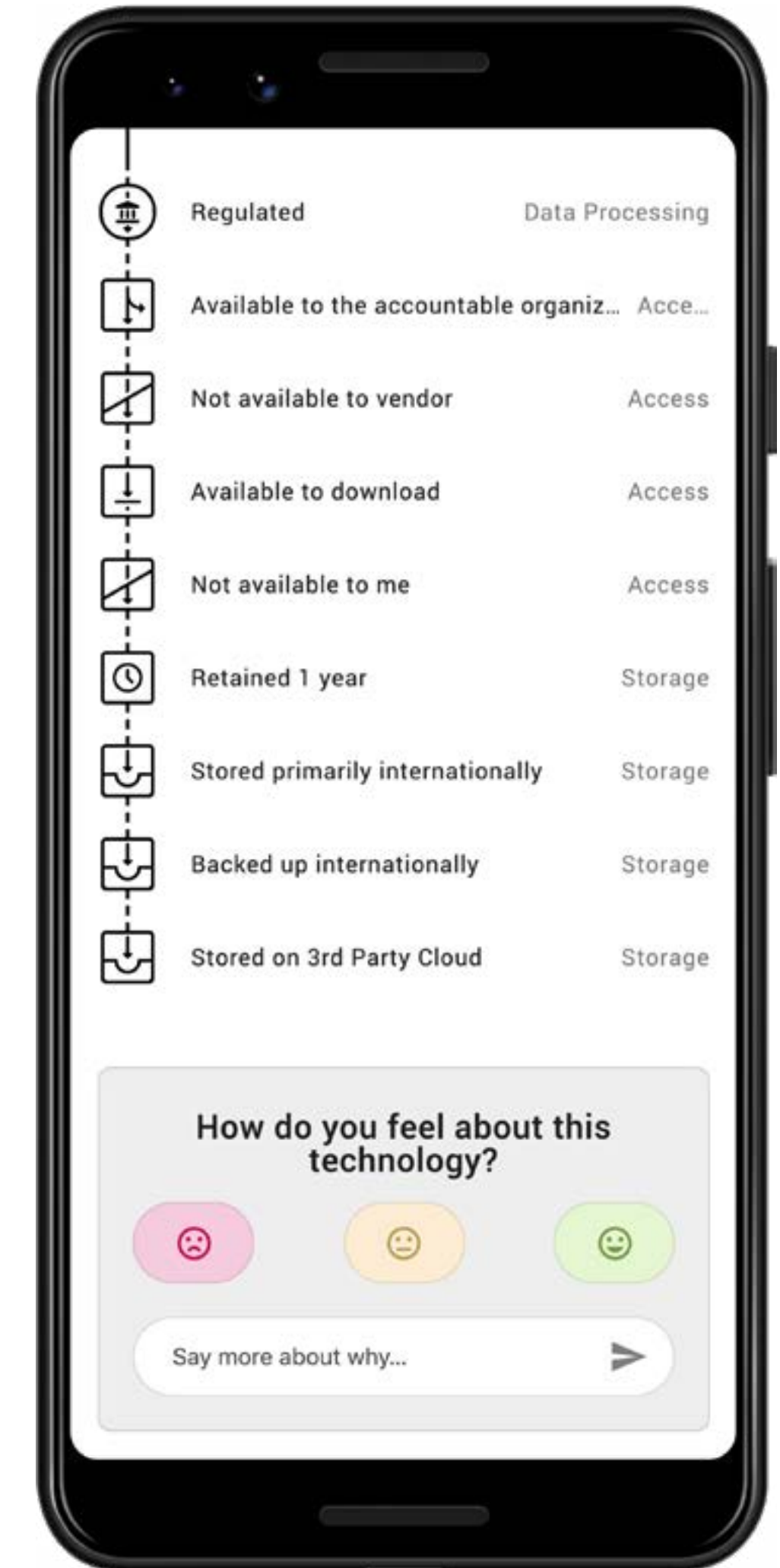
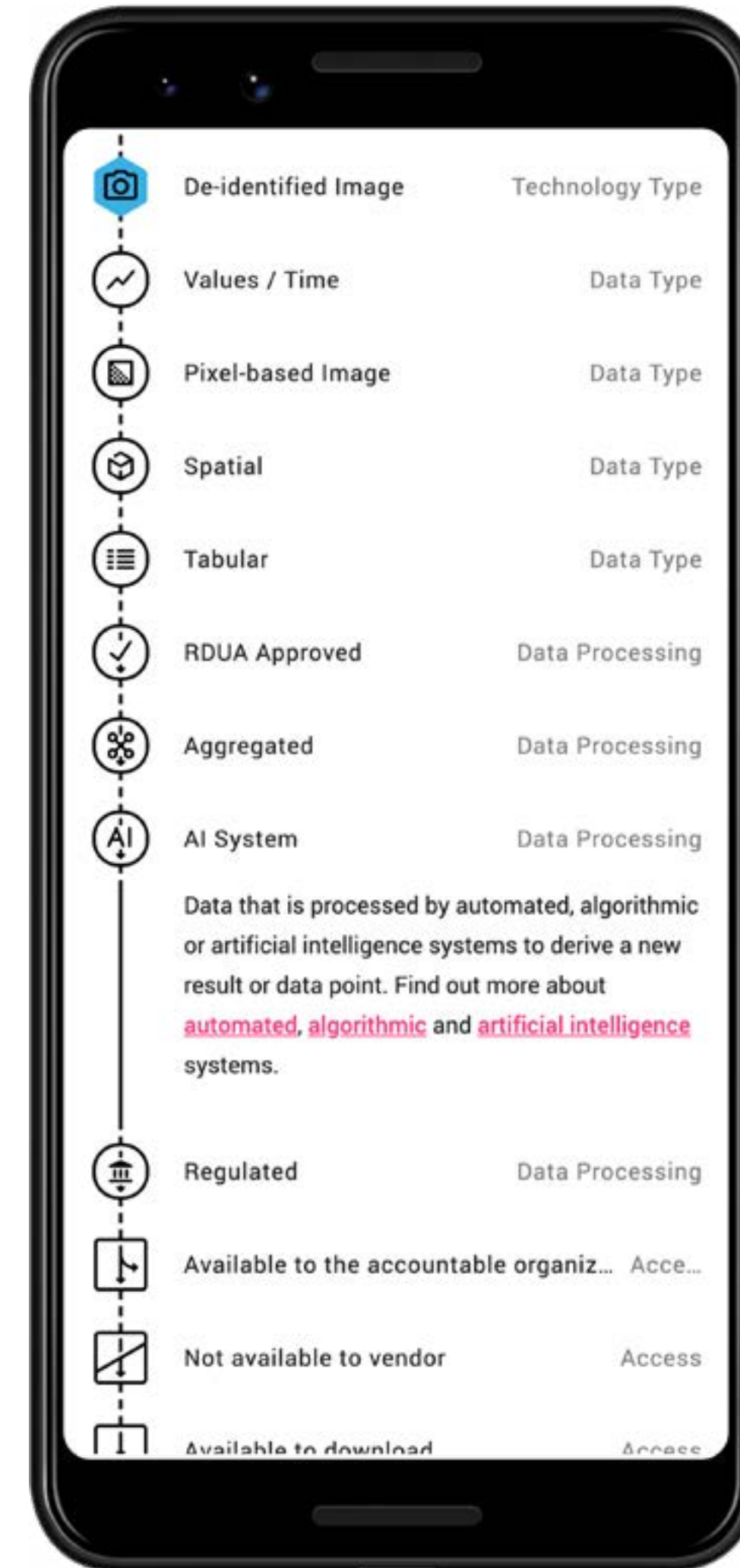
The Design Toolkit at a glance



There are so many important concepts that came up during our session. We couldn't fit them all on a sign. However you'll find these on the digital channel accessed through the QR codes.

This application can both help you understand technology on a deeper level, but also can work to show you a broader picture of technology in your area. We're still working on the beta version of this app, but we do have a digital prototype that you can check out.

→ Try it out

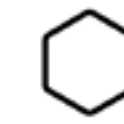


Concepts like technology type, data processing, and storage, have associated icons. We've created a way for these icons to lock together and convey a simple way to think about technology

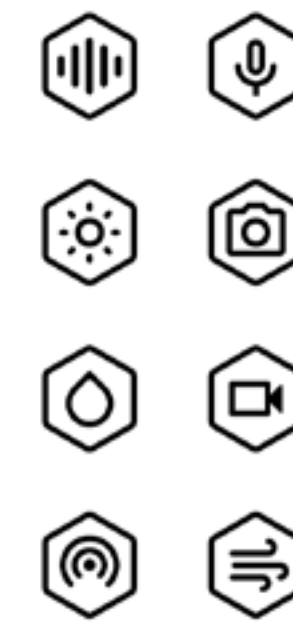
We see this mental model moving from device to data & processing to storage & access. Attributes about the device are hexagonal, to mirror the physical signs you see in public space. Date & process attributes are contained by a circle. Finally, storage & access are represented by a box, which felt like a good kind of shape to store things in.



Purpose



Technology Type



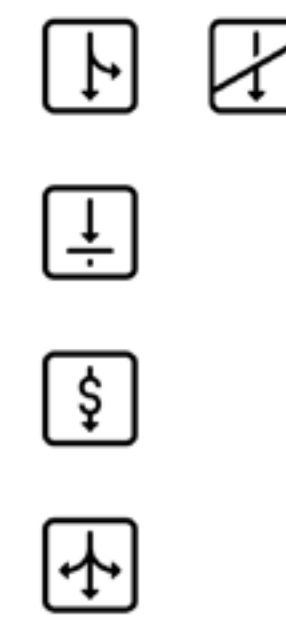
Data Process



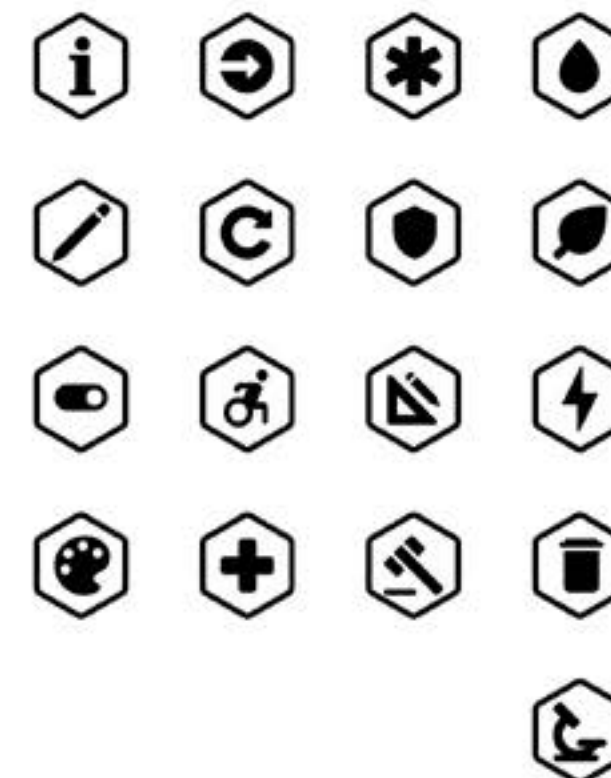
Data Type



Access



Storage



→ [Download the icons](#)

The Process Continues

This project's goal is to make these concepts, including all the workshop activities and materials, publicly and freely available for others to adopt, use and build upon, so that we can advance digital literacy and help people understand digital infrastructure in the public realm.

You can see a [→ database of the taxonomy and icons here](#)

You can access and use the [→ final icon set here on GitHub](#)

You can try out the [→ digital channel prototype here](#)

And of course, you can organize your own co-design session by downloading the [→ co-design kit](#)

Team

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GRIT Toronto

Contributors

Designing for Digital Transparency in the Public Realm is a collaborative co-design project organized initially by Sidewalk Labs. Many people and organizations contributed to the development of the project. Contributors who opted-in to be referenced as part of the attribution include:

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