

Holistic Design Toolkit

Experimental tools to include the environment and non-users in design-thinking for more life-centred design

Holistic Design Toolkit

As designers and product creators, we are not just producing items with a lifecycle defined by human use. We are releasing into the world something that impacts multiple ecosystems spanning the time and distance of the product's entire lifecycle, from the sourcing of its various materials to the manufacturing, repair, life of use, and final breakdown.

The evolution of life-centred design (also known as 'environment-centred design' and 'planet-centred design') has begun to expand our mindset from purely human-centred creation to include consideration of sustainable economical, environmental, and social solutions.

The Holistic Design Tools are life-centred adaptations of existing user-centred design tools.

Explore, experiment, evolve and re-share.

"But we need to design that future, to experiment and make things that describe what might be possible, and to create the kinds of systems that make our world richer, stranger, and more full of possibility."

Alexis Lloyd | Product Designer for Medium | From "R2D2 as a model for AI collaboration"

Included tools

Holistic Futures Wheel

Product Lifecycle Impact Cards

Non-human persona

Non-user persona

User persona

Core Values List

Holistic Futures Wheel

ABOUT

The original Futures Wheel was invented by futurist Jerome C. Glenn in 1971 to explore the consequences of change, and is also now used as a decision-making and idea-exploring tool.

Glenn's Future's Wheel gave structure to brain-storming (recalling what you know about a topic) and mind-mapping (working out relationships between those points). But Glenn eventually became concerned the wheel didn't encourage users to consider consequences beyond the economic impacts.

He created a Version 2 that segmented the wheel into predetermined sections including cultural, psychological, welfare, technological, educational, political, environmental, and economic.

He then created a Version 3 to consider time.

The **Holistic Futures Wheel** is an adaptation of Glenn's Version 2 to be less predetermined—to allow specific variations of emphasis on considerations—by separating the original wheel into just two areas: HUMAN Direct/Indirect results and LIFE Direct/Indirect results.

You can use the wheel in conjunction with the Product Lifecycle Impact Cards to help generate ideas for the LIFE results.

Holistic Futures Wheel

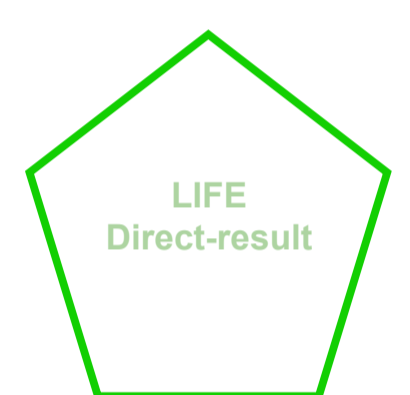
KEY



The centre circle is your challenge—an idea, change, or decision—that you want to explore the consequences of.



The circle HUMAN Direct/Indirect results are impacts on immediate human-related aspects (product users, business and economic impacts).



The polygon LIFE Direct/Indirect results include impacts to biodiversity health (land, forests, sea, air, animals, insects, ecosystems, energy, weather), human diversity (racial, cultural, sexual, gender), and invisible humans impacted throughout the change/product's life-cycle. To assist in generating ideas for this, use the Product Lifecycle Impact Cards.

HOW TO USE

Step 1

Write your Challenge (idea/decision/change) in the centre.

Step 2

Imagine this challenge actually occurs, and identify (brainstorm or research) possible direct consequences. These can be positive, negative, or neutral. Write them in the first ring around the Challenge in the centre.

Step 3

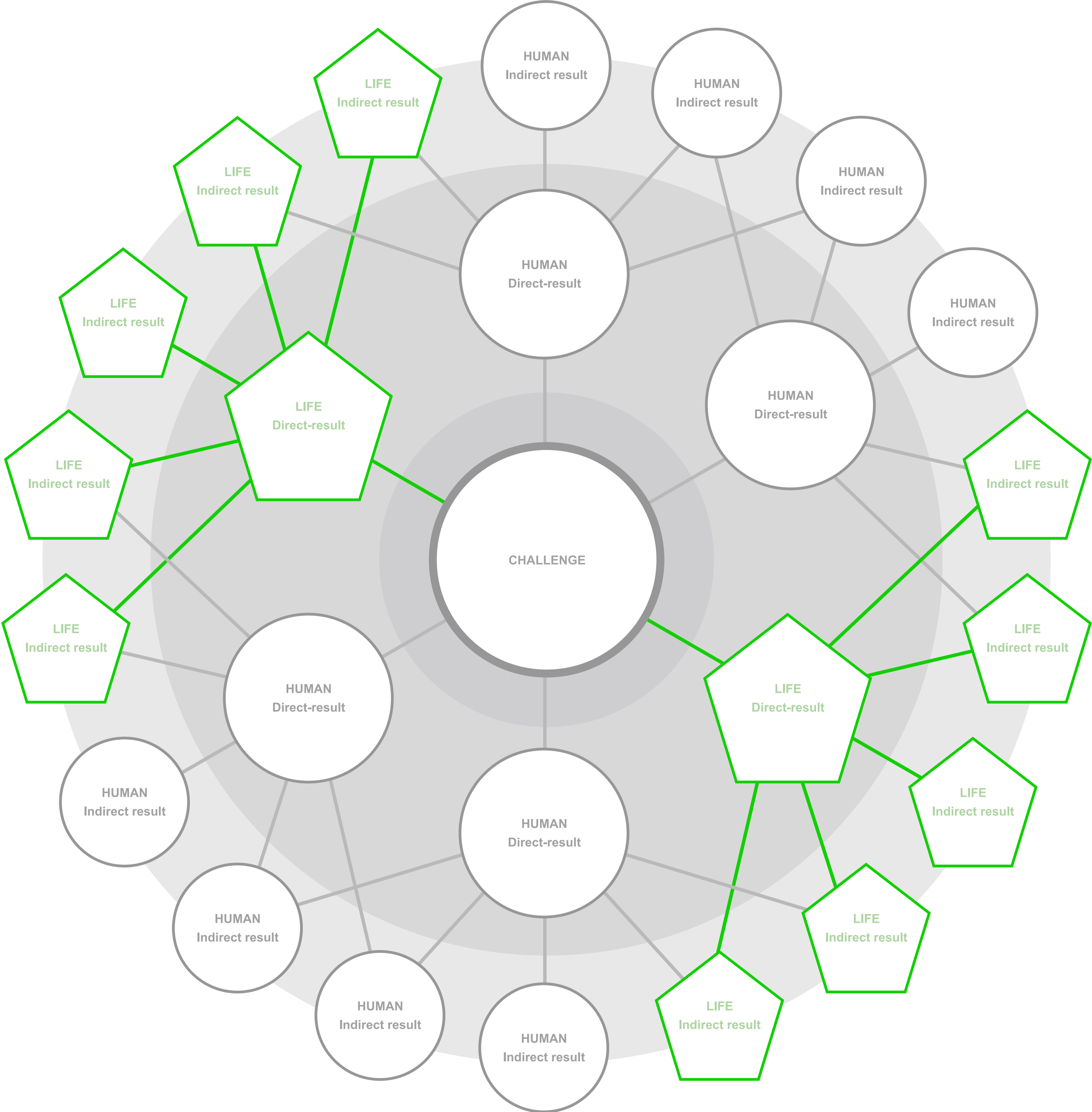
Identify indirect consequences generated by the direct consequences. Use the connecting lines to help you think of what indirect results the combined effects of two direct results might generate. These lines are just a guide, feel free to ignore/remove as needed.

Step 4

Extend into new rings of indirect results as many times as desired. Feel free to go into third or more levels of consequences.

Step 5

Analyze for next steps—consider how to improve or manage the negative impacts, enhance and leverage the positive, and remove or energise the neutral.



Product Lifecycle Impact Cards

ABOUT

The Product Lifecycle Impact Cards consist of six sections that follow the true lifecycle of a product, from where and how Materials are sourced, through the Manufacturing, Supply and Life in Use stages, through to what happens at the Completion of its usable life and the actual Breakdown of its parts back into the natural world.

"It's time to level up and start practicing environment-centred design, no matter which industry you work in. Non-human persona is one of the tools that can help shift your mindset towards this new design framework in the making."

Monika Snezl | Anthropologist, UX researcher, and environment-centred design advocate

HOW TO USE

Simply print, cut, fold and tape.

Then use these cards to guide the design of new products or to assess the impact of existing ones.

Shuffle and flip to use as a random challenge to the design thinking, or go through each as you map out your service design blueprint.

You can also use these in conjunction with the Holistic Futures Wheel to help generate results for the LIFE direct/indirect results.

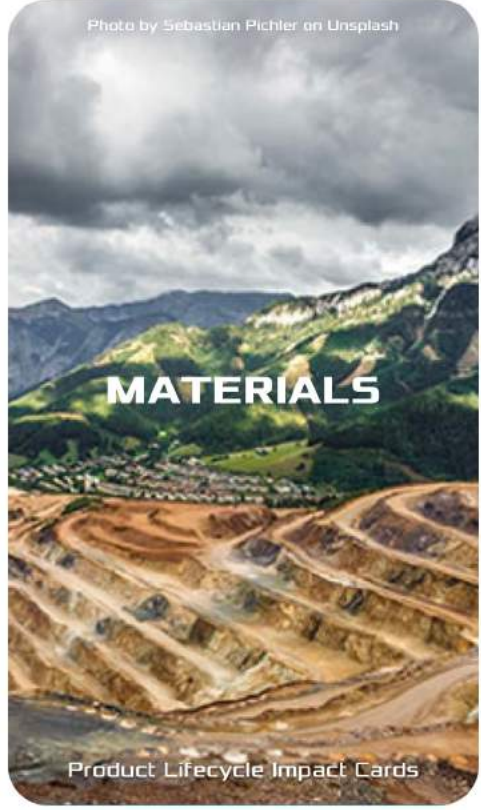
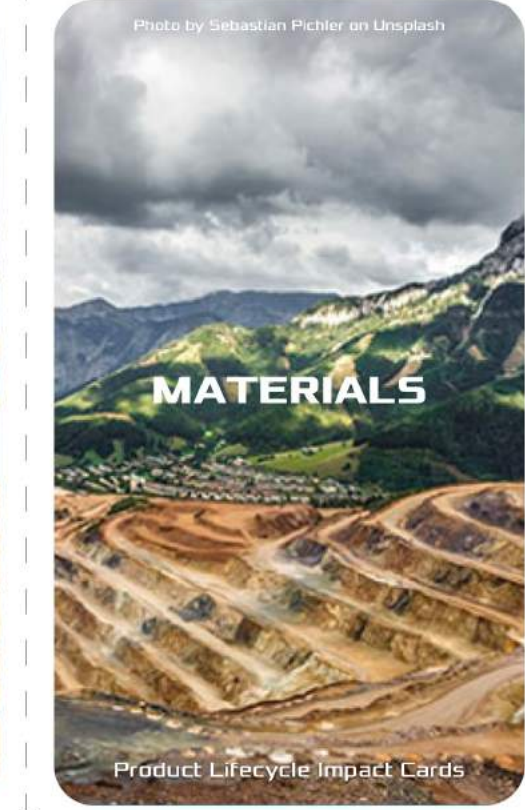
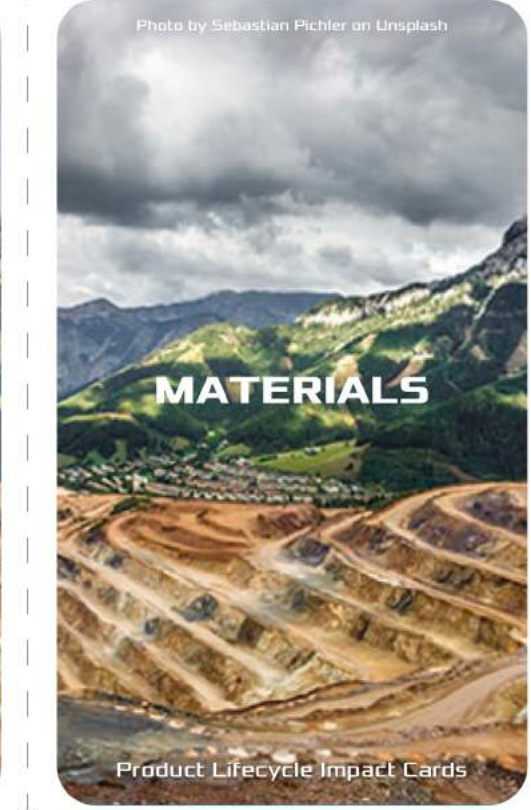
You can also use an online version at:

damienlutz.com.au/product-lifecycle-cards/

“Materials” cards

Cut and fold as indicated.




Use adhesive putty, sticky tape, or glue to secure.

<p>Photo by Sebastian Pichler on Unsplash</p>  <p>MATERIALS</p> <p>Product Lifecycle Impact Cards</p>	<p>[CUT]</p> <p>Photo by Sebastian Pichler on Unsplash</p>  <p>MATERIALS</p> <p>Product Lifecycle Impact Cards</p>	<p>Photo by Sebastian Pichler on Unsplash</p>  <p>MATERIALS</p> <p>Product Lifecycle Impact Cards</p>
<p>[FOLD]</p> <p>MATERIALS</p> <p>Are some materials sourced from areas in conflict which can fund wars and human rights abuse?</p> <p>Product Lifecycle Impact Cards</p>	<p>[FOLD]</p> <p>MATERIALS</p> <p>What problems could arise from the sourcing of this invention's materials? Are conflict materials used?</p> <p>Product Lifecycle Impact Cards</p>	<p>[FOLD]</p> <p>MATERIALS</p> <p>Does the extraction of these materials cause environment damage, such as deforestation, toxic waste, air pollution? How are local animals affected?</p> <p>Product Lifecycle Impact Cards</p>

“Manufacturing” cards

Cut and fold as indicated.

Use adhesive putty, sticky tape, or glue to secure.

<p>Photo by Wim van 't Einde on Unsplash</p>  <p>MANUFACTURING</p> <p>Product Lifecycle Impact Cards</p>	<p>[CUT]</p> <p>Photo by Wim van 't Einde on Unsplash</p>  <p>MANUFACTURING</p> <p>Product Lifecycle Impact Cards</p>	<p>Photo by Wim van 't Einde on Unsplash</p>  <p>MANUFACTURING</p> <p>Product Lifecycle Impact Cards</p>
<p>[FOLD]</p> <p>MANUFACTURING</p> <p>What environmental problems could arise from the manufacturing of this invention?</p> <p>Product Lifecycle Impact Cards</p>	<p>[FOLD]</p> <p>MANUFACTURING</p> <p>Are children exploited as labour?</p> <p>Product Lifecycle Impact Cards</p>	<p>[FOLD]</p> <p>MANUFACTURING</p> <p>Are there harsh working conditions for adults and how does it impact their life outside of work?</p> <p>Product Lifecycle Impact Cards</p>


“Supply chain” cards

Cut and fold as indicated. Use the spare to write your own challenge.

Use adhesive putty, sticky tape, or glue to secure.

[CUT]

Photo by Nilantha Ilangamuwa on Unsplash



Product Lifecycle Impact Cards


[FOLD]

SUPPLY CHAIN

What risks do each aspect of the supply chain pose, and are they well mitigated (e.g. oil spill)?

Product Lifecycle Impact Cards

Photo by Nilantha Ilangamuwa on Unsplash



Product Lifecycle Impact Cards

[FOLD]

SUPPLY CHAIN

What effect does the chain of supply have on the world?
Is there high energy waste, hazard air emissions, greenhouse gas emissions, etc?

Product Lifecycle Impact Cards




[FOLD]

[CUT]

“Use” cards

Cut and fold as indicated.

Use adhesive putty, sticky tape, or glue to secure.

<p>Photo by PR MEDIA on Unsplash</p>  <p>Product Lifecycle Impact Cards</p>	<p>[CUT]</p> <p>Photo by PR MEDIA on Unsplash</p>  <p>Product Lifecycle Impact Cards</p>	<p>Photo by PR MEDIA on Unsplash</p>  <p>Product Lifecycle Impact Cards</p>
<p>[FOLD]</p> <p>USE</p> <p>How much packaging does the product use and how much is recyclable?</p> <p>Product Lifecycle Impact Cards</p>	<p>[FOLD]</p> <p>USE</p> <p>Does the ongoing use and maintenance of this invention require high amounts of power, battery replacements, part refills, etc? Can parts be replaced, or does the whole device need to be changed when one part fails?</p> <p>Product Lifecycle Impact Cards</p>	<p>[FOLD]</p> <p>USE</p> <p>Is the product part of a product ecosystem that generates more energy consumption and waste? Do these extra products fulfill real needs?</p> <p>Product Lifecycle Impact Cards</p>

“Breakdown” cards

Cut and fold as indicated. Use the spare to write your own challenge.

Use adhesive putty, sticky tape, or glue to secure.



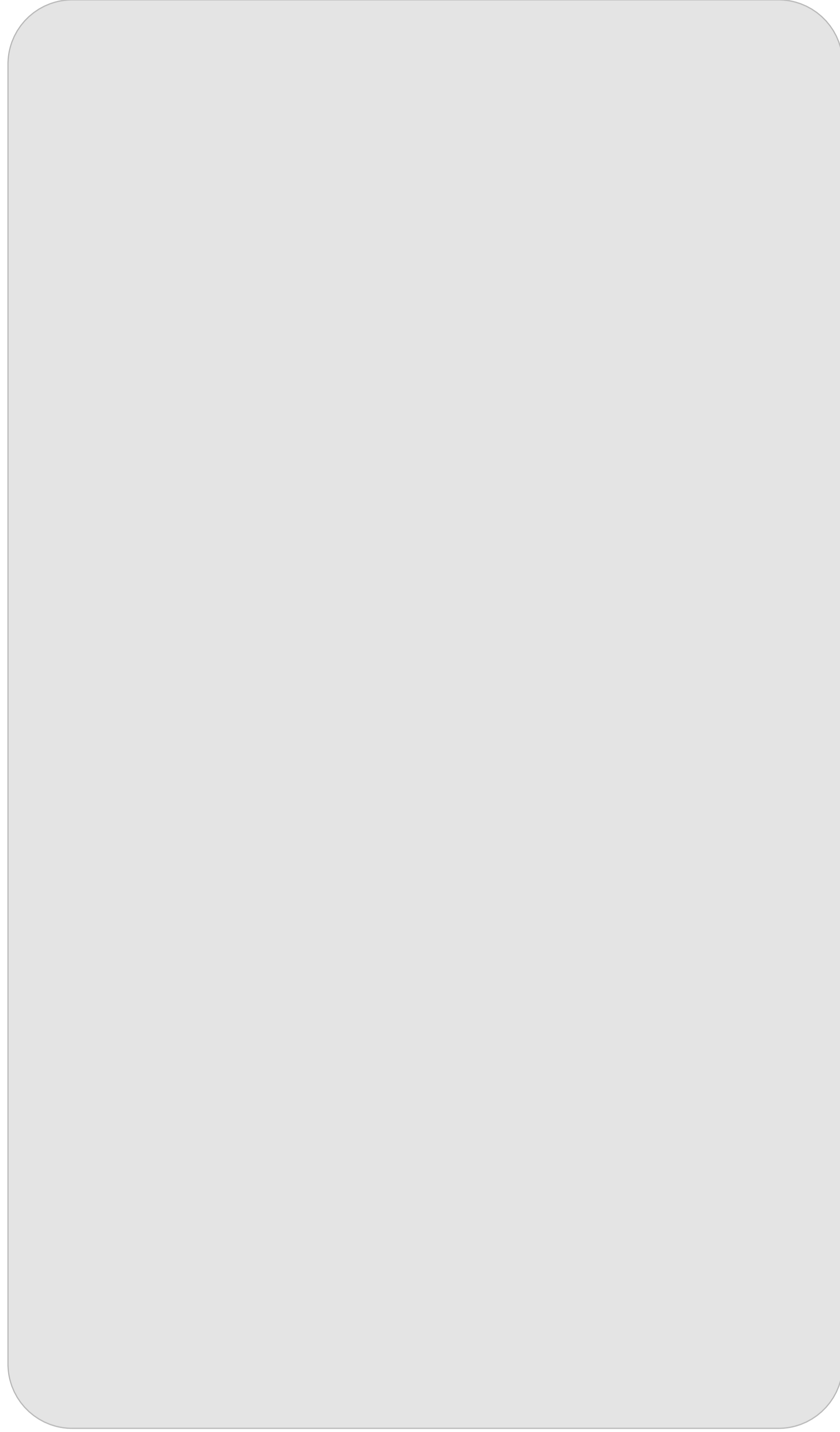
[FOLD]

[CUT]



[FOLD]

[CUT]



[FOLD]

BREAKDOWN

How many parts are recyclable and how much is land-fill?

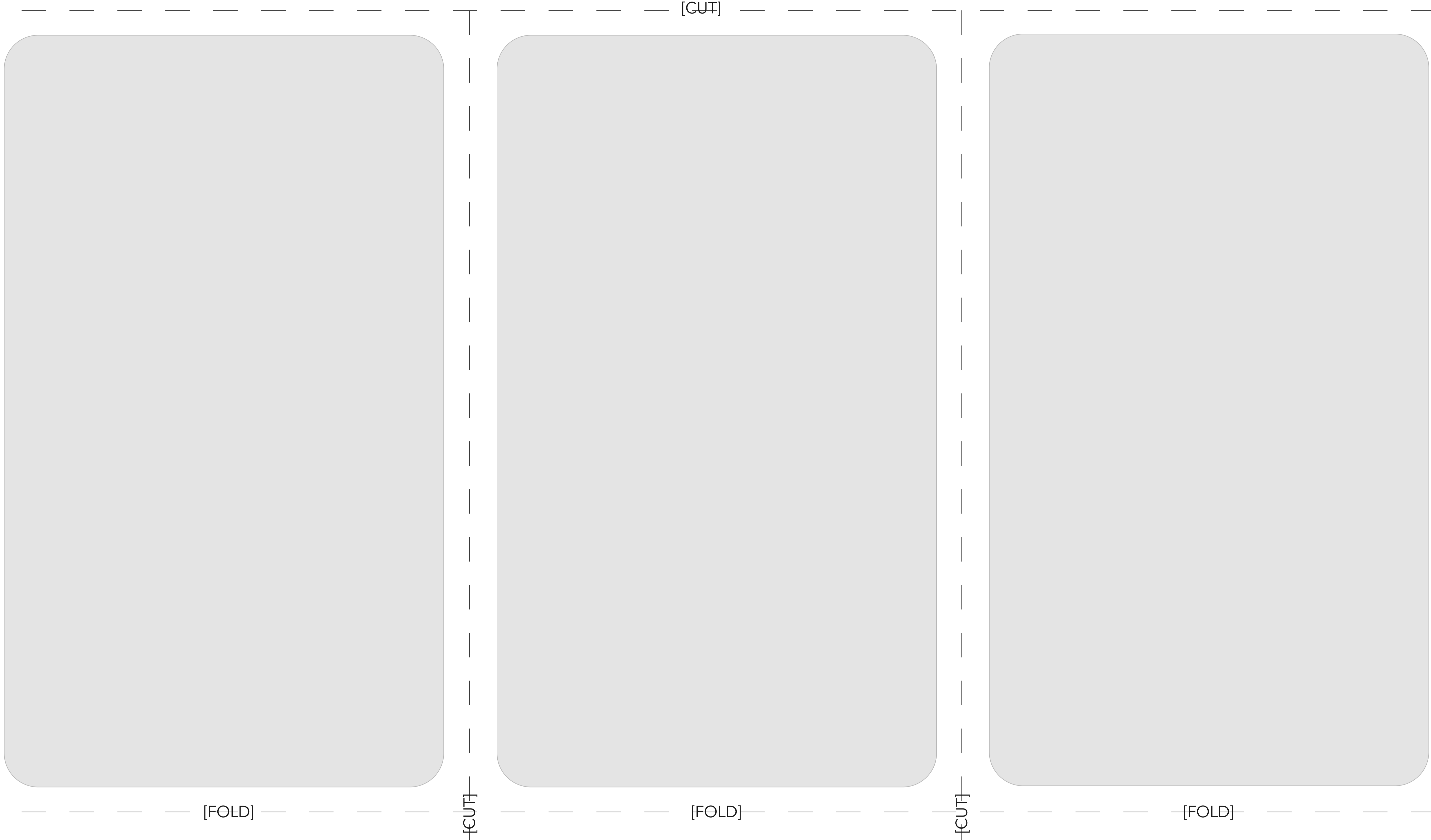
BREAKDOWN

How long do the land-fill parts take to break down?
How are the environment and animal-life affected?

Spare cards - create your own

Cut and fold as indicated.

Use adhesive putty, sticky tape, or glue to secure.



Non-human Persona

ABOUT

Non-human personas are visual characterisations of the stakeholders we usually ignore-the environment impacted by a product's lifecycle.

Monika Snezl-anthropologist, UX researcher, and environment-centred design advocate - advises that Non-human personas differ from User personas in that non-human personas are primarily based on facts, so you'll need to check and double-check the quality of facts you include.

Data and statistics for non-human personas can be sourced from documentation produced by respectable global organisations like the UN, and from more localised affiliate-free organisations.

Ideally, you could also interview experts such as scientists, experts, and/or people already impacted by any environmental concerns relevant to the change/product being designed.

Based on classic user personas, and expanding on Snezl's non-human persona, this non-human persona includes:

threats to its current condition

where and when in the product life-cycle the non-human is impacted

the use of first-person narrative and verbatim to personify the non-human persona to assist empathy among the team

Combining Nielsen Norman Group's user persona and Snezl's non-human persona guidance, the purpose of a Non-human persona is to:

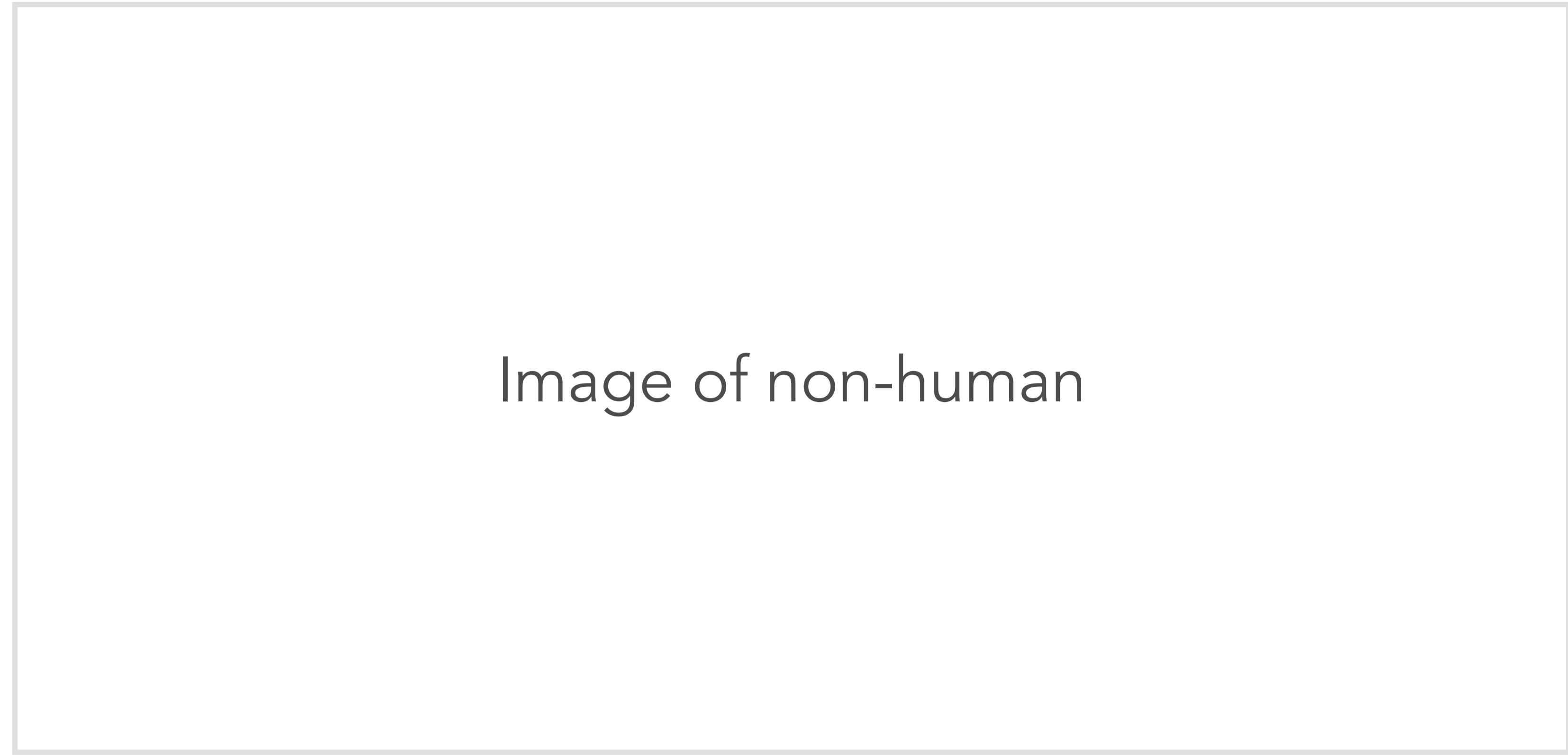
Be a realistic and fact-based representation of a non-human entity to assist in balancing user-centred and life-centred design during project shaping, development, maintenance, and shut-down by fostering empathy and understanding in stakeholders.

HOW TO USE

Use non-human personas during all phases of the design process as a reference to guide design decisions so your designs fulfil persona needs, reduce or remove their pains, and maintain or enhance their health.

[Non-human name]

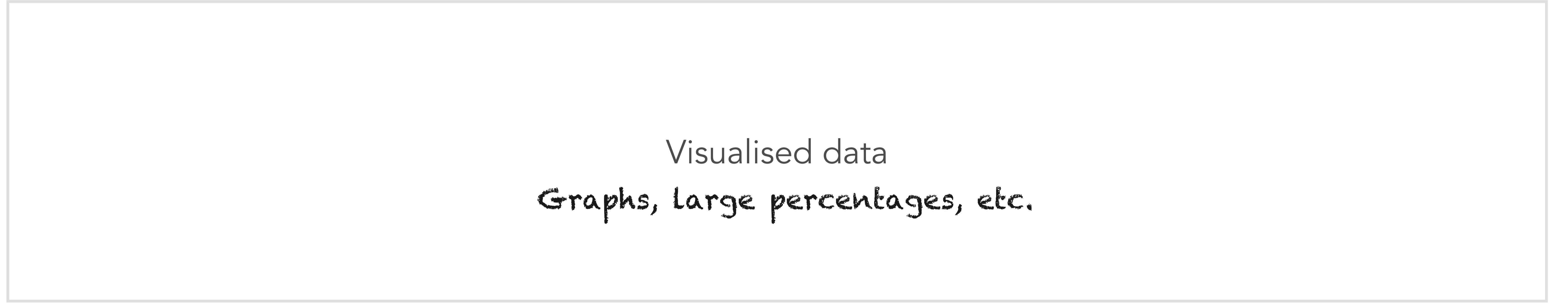
[Tag line describing function on the world]



[A summary of what they are]

“ [Non-human first-person verbatim regrading why the world needs them]

Needs	Pains	Health	Thriving
[Summarise key needs for non-human to survive and thrive.]	[Summarise key threats to non-human's health and survival.]	[Summarise current health status, and colour the appropriate number of boxes to the right to create a visual indicator of where the non-human is on a scale from critical and near extinction up to optimal health and function.]	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Critical

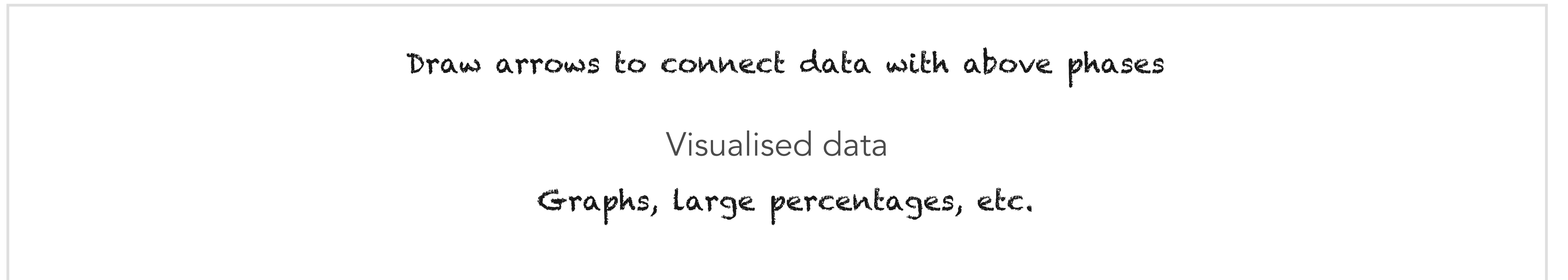


[Tag line describing their relationship with the product/project]

[Context of they're relationship to the project]

Materials	Manufacturing	Supply chain	Use	Disposal	Breakdown
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Tick all phases when the non-human is impacted



Project impact summary

[Summarise key positive and negative potential impacts the product/project/change being designed may have on the non-human.]

“ [Non-human first-person verbatim regrading impact of project]

“

Needs	Pains	Health	Thriving
<hr/>	<hr/>	<hr/>	<input type="checkbox"/>
<hr/>	<hr/>	<hr/>	<input type="checkbox"/>
<hr/>	<hr/>	<hr/>	<input type="checkbox"/>
<hr/>	<hr/>	<hr/>	<input type="checkbox"/>
<hr/>	<hr/>	<hr/>	<input type="checkbox"/>
<hr/>	<hr/>	<hr/>	<input type="checkbox"/>

Critical

Materials	Manufacturing	Supply chain	Use	Disposal	Breakdown
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Project impact summary

“

Non-user persona

ABOUT

Non-*human* personas tend to focus on the environment (land, sea, air, animals, etc.), while classic user personas represent the target audience. The Non-*user* persona template represents those people who may be forgotten in the gap between the user and non-human personas.

Non-users are the people indirectly or invisibly impacted at any stage of the product lifecycle. Think in terms of:

Will the use of your product create discrimination against a minority?

Does the sourcing of your product's materials encourage forced child-labour?

Does the disposal of your product poison the soil system in another country that destroys a foreign farmer's ability to maintain their livelihood?

The Product Lifecycle Impact Cards may highlight the existence of these Non-users, but creating their personas could help establish them as key considerations and assist the business in empathising.

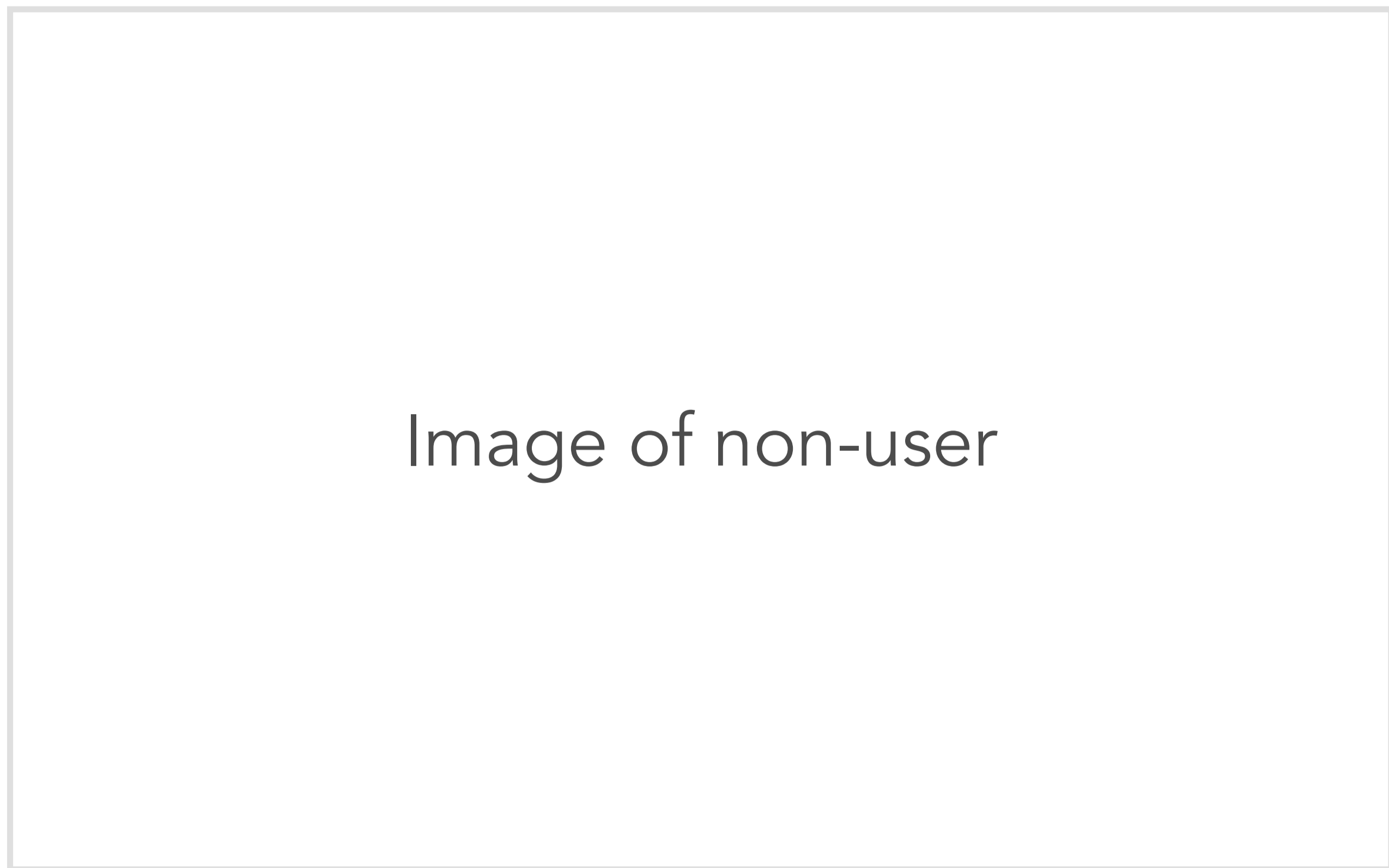
Non-user personas may represent a real person or a persona group. They may be a combination of fictional representation and scientific data, so be as careful with what you include for these as you would with Non-human personas.

HOW TO USE

Use non-user personas during all phases of the design process as a reference to guide design decisions so your designs fulfil persona needs and reduce or remove their pains.

[Non-user name] | [Age]

[Tag line describing what they do in real life]



[a summary of who they are]

Four horizontal lines for writing a summary of who they are.

“ [Non-user first-person verbatim that summarises their persona]

Needs

[Summarise key needs for non-user to survive and thrive.]

Five horizontal lines for writing needs.

Pains

[Summarise key threats to non-user's health and survival.]

Five horizontal lines for writing pains.

Visualised data
Graphs, large percentages, etc.

[Tag line describing non-user's relationship with the product/project]

[Summarise this relationship]

Four horizontal lines for summarizing the relationship.

Tick all phases when the non-human is impacted

Materials	Manufacturing	Supply chain	Use	Disposal	Breakdown
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Draw arrows to connect data with above phases

Visualised data
Graphs, large percentages, etc.

Project impact summary

[Summarise key positive and negative potential impacts the product/project/change being designed may have on the non-user.]

Five horizontal lines for summarizing project impact.

“ [Non-user first-person verbatim regarding impact of project]

Five horizontal lines for verbatim impact.

“

Needs

Pains

Materials	Manufacturing	Supply chain	Use	Disposal	Breakdown
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Project impact summary

“

User persona

ABOUT

User personas are semi-fictional characters created from observations of real-world users to represent the various customer types using a company's products or services. They can also represent target audiences yet to use the products/services.

HOW TO USE

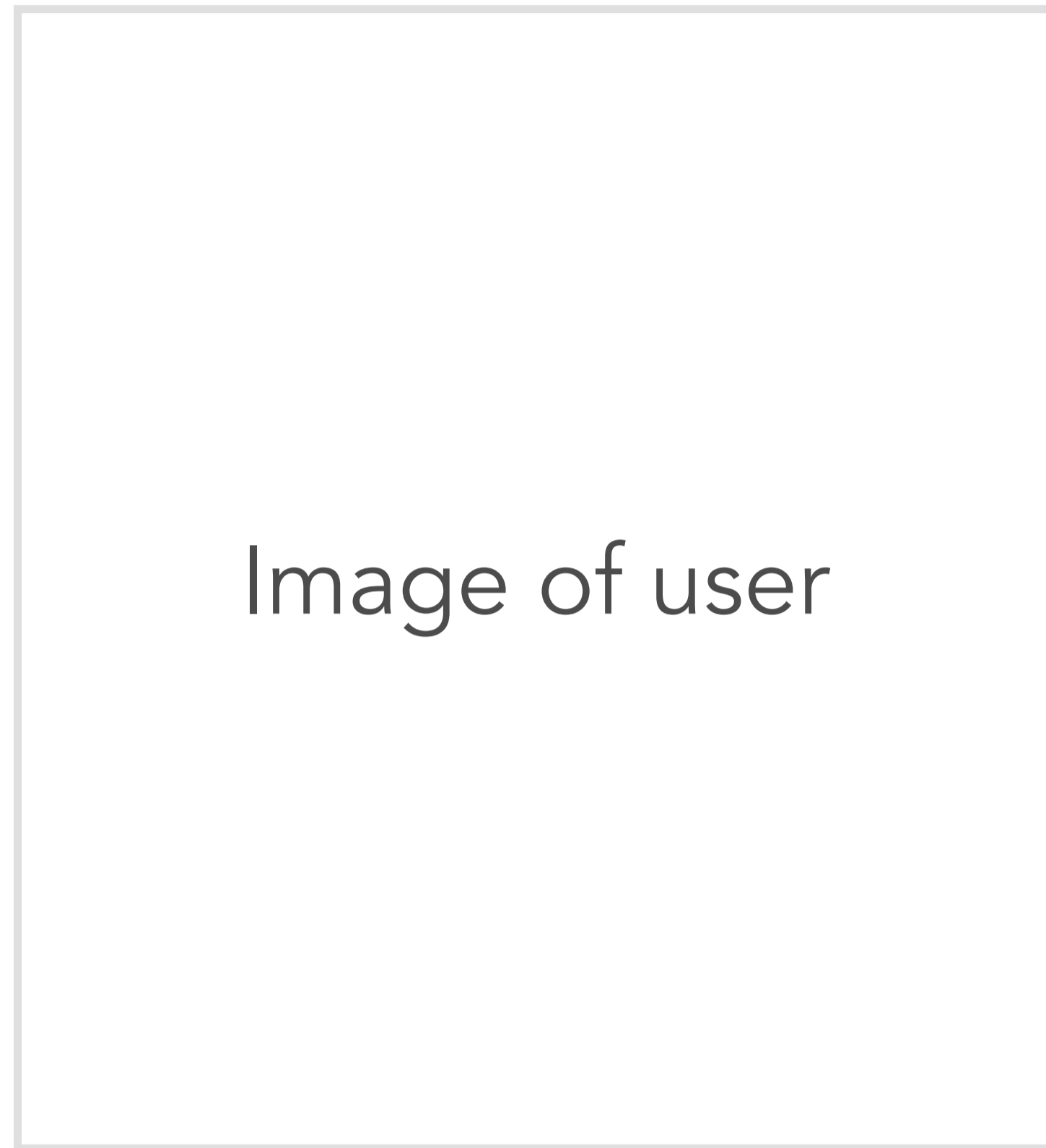
Use user personas during all phases of the design process as a reference to guide design decisions so your designs fulfil persona needs, maintain or enhance their joys, and reduce or remove their pains.

[Fictional User name]

[Tag line describing their life situation]

[Summary of their life stage]

“
[User first-person verbatim that summarises
their persona]”



Demographics

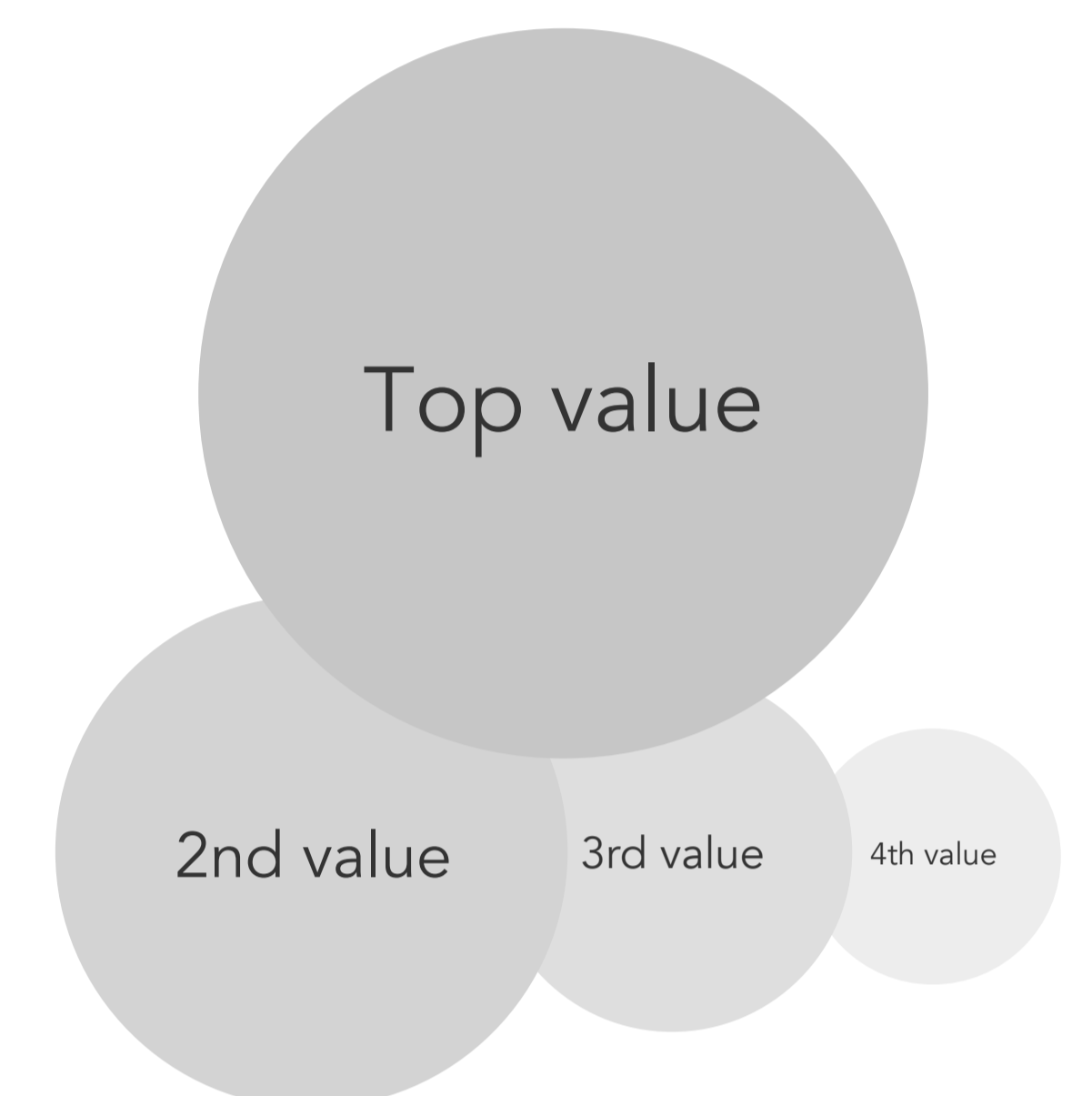
- [Factors such as age,
- race, sex,
- employment,
- education, income,
- etc.]
-

Psychographics

- [Factors such as
- personality type,
- attitudes, interests,
- lifestyle choices, etc.]
-

Values

[Draw circles for key values and use size to show importance]



[Tag line describing how the product relates to the user's life situation]

[Summary of their use of the product]

“
[User first-person verbatim regarding their
relationship with the product]”

Needs

[Summarise user's key needs for
engaging with your—or similar—
products.]

Joys

[Summarise user's key joys and
successes when engaging with your—or
similar—products.]

Pains

[Summarise user's key pains when
engaging with your—or similar—
products.]

Visualised data
Graphs, large percentages, etc.

“

Demographics

-
-
-
-
-

Psychographics

-
-
-
-
-

Values

“

Needs

Joys

Pains

<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>
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Core Values

ABOUT

Taking time to get to know your core values aligns what you think is important with what is actually important to you. Once you know your values, you can use them to guide your behaviours, decisions, and actions. You'll know what to stand for in life and what to champion in any design process.

You can simply pick your top 10 from the list, or go deeper using the values discovery activities by CEO Sage:

scottjeffrey.com/personal-core-values/

Core Values List

A

Abundance
Acceptance
Accomplishment
Accountability
Accuracy
Achievement
Adaptability
Alertness
Altruism
Ambition
Amusement
Assertiveness
Attentive
Awareness

B

Balance
Beauty
Boldness
Bravery
Brilliance

C

Calm
Candor
Capable
Careful
Certainty
Challenge
Charity
Cleanliness
Clear
Clever
Comfort
Commitment
Common sense
Communication
Community
Compassion
Competence
Concentration
Confidence
Connection
Consciousness
Consistency

Contentment
Contribution
Control
Conviction
Cooperation
Courage
Courtesy
Creation
Creativity
Credibility
Culture
Curiosity

D

Decisiveness
Dedication
Dependability
Determination
Development
Devotion
Dignity
Discipline
Discovery
Diversity
Drive

E

Education
Effectiveness
Efficiency
Empathy
Empower
Endurance
Energy
Enjoyment
Enthusiasm
Environmentalism
Equality
Ethical
Excellence
Experience
Exploration

F

Fairness
Family
Famous
Fearless
Fidelity
Focus
Foresight
Fortitude
Freedom
Friendship
Fun

G

Generosity
Genius
Goodness
Grace
Gratitude
Greatness
Growth

H

Happiness
Harmony
Health
Honesty
Honour
Hope
Humility
Humour

I

Identity
Imagination
Improvement
Independence
Individuality
Innovation
Inquisitive
Insightful
Inspiration
Integrity
Intelligence
Intensity
Intuition

J

Joy
Justice

K

Kindness
Knowledge

L

Lawfulness
Leadership
Learning
Liberty
Logic
Love
Loyalty

M

Mastery
Maturity
Meaning
Moderation
Motivation

O

Openness
Optimism
Order
Organization
Originality

P

Passion
Patience
Peace
Persistence
Playfulness
Poise
Potential
Power
Presence
Privacy
Productivity
Professionalism
Prosperity
Purpose

Q

Quality
Quality of life

R

Realism
Reason
Recognition
Recreation
Reflection
Resilience
Respect
Responsibility
Restraint
Reverence
Rigor
Risk

S

Safety
Satisfaction
Security
Self Expression
Self-reliance
Selflessness
Sensitivity
Serenity
Service
Sharing
Significance
Silence
Simplicity
Sincerity
Skillfulness
Society
Solitude
Spirituality
Spontaneity
Stability
Status
Stewardship
Strength
Structure
Success
Support
Surprise
Sustainability

T

Talent
Teamwork
Temperance
Thoughtfulness
Tolerance
Tradition
Tranquillity
Transparency
Trust
Truth

U

Uniqueness
Unity

V

Valour
Vigour
Vision
Vitality

W

Wisdom
Wonder

Your top 10 Core Values

Designing Futures

DO WHAT YOU LOVE AND SAVE THE WORLD

Much of the planet's design thinking is enslaved to the consumer machine, encouraging people to buy stuff and do things that are killing the planet, hurting animals, and exploiting people in poverty.

Designing Futures aims to inspire designers, writers and futurists to experiment and make time for projects that align with their own value-driven interests to design futures they believe in.

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