

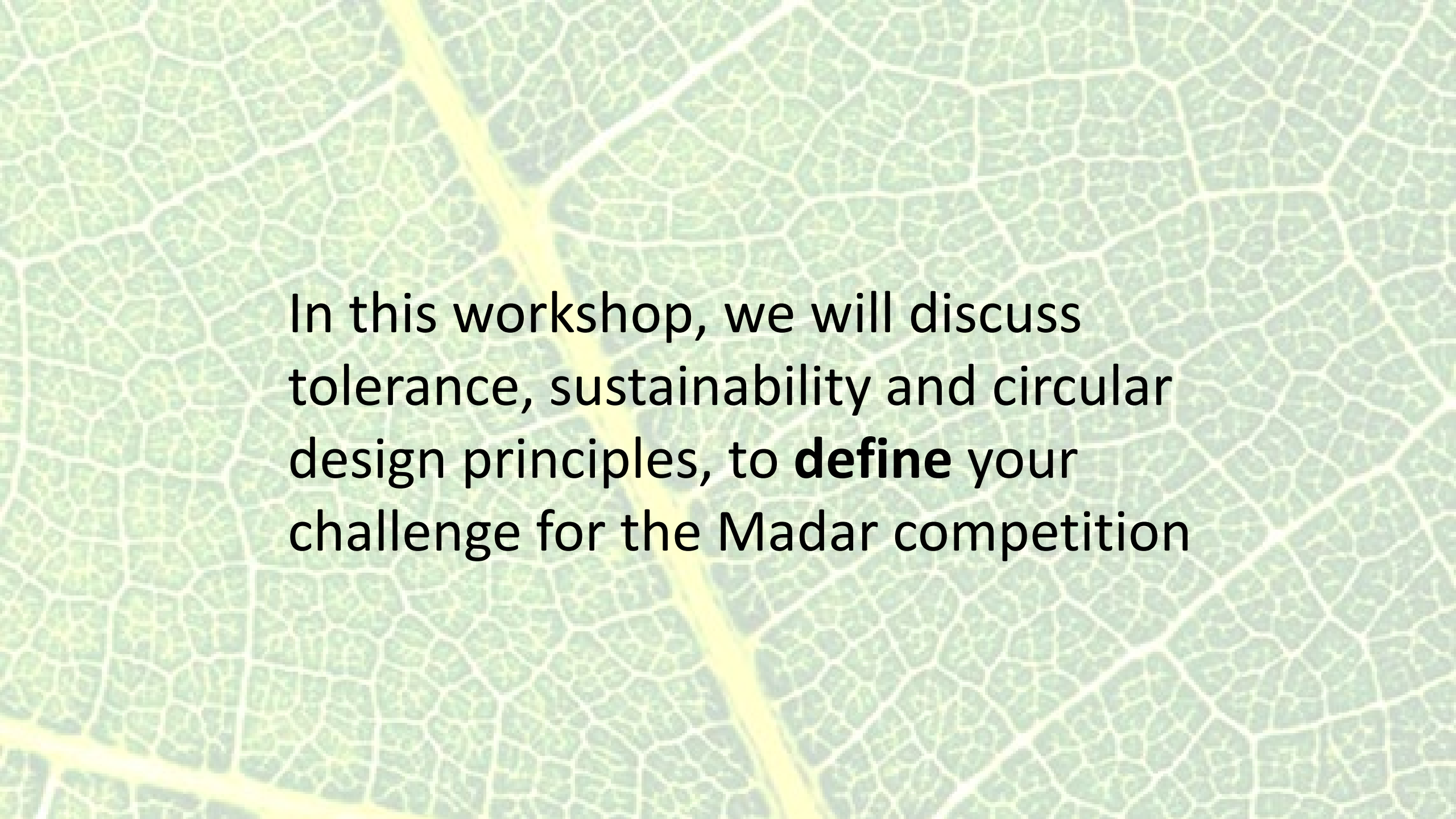
# Tolerance, Sustainability & Circularity

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Rochester Institute of Technology RIT - Dubai

**R·I·T**  
**Dubai**

The background of the slide features a close-up, high-resolution image of a leaf's venation. The veins are a vibrant yellow-green color, creating a complex, interconnected network of lines that fill the entire frame. The overall tone is light and natural, with a focus on organic patterns.

In this workshop, we will discuss tolerance, sustainability and circular design principles, to **define** your challenge for the Madar competition

# Your challenge!

Identify challenges around you, which can be improved, and start proposing opportunities to develop your projects!

The background of the slide is a close-up photograph of a leaf. The leaf's surface is covered in a dense network of small, light-colored veins, creating a complex, honeycomb-like pattern. A single, thick, bright yellow vein runs diagonally from the top left towards the bottom right, standing out prominently against the green and light-colored background.

**Our Aim today!**

**Define your project!**



Recap: What is Tolerance?

# Tolerance

Willingness to [respect and] accept feelings, habits, or beliefs that are different from your own.

Source: Encyclopedia Britannica.



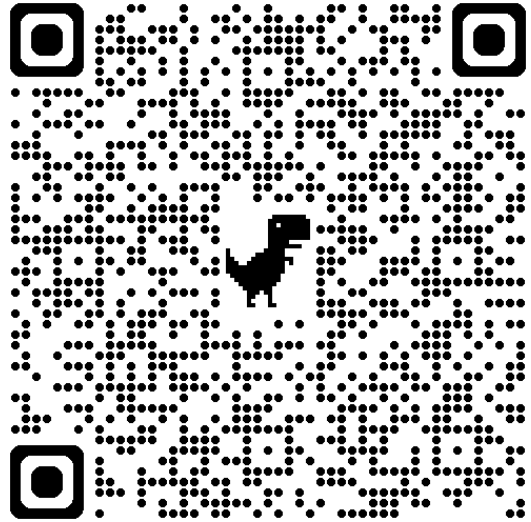
A living embodiment of the teachings of true Islam



An essential tool for achieving a comprehensive and sustainable development

# Tolerance in UAE





Let's create a free  
fig-jam student account,  
to interact online.

The background of the slide is a close-up photograph of a green leaf. A single, thick, bright yellow vein runs diagonally from the top left towards the bottom right. The rest of the leaf is covered in a dense network of smaller, lighter green veins, creating a complex, cellular pattern.

Recap

Sustainability & Circularity

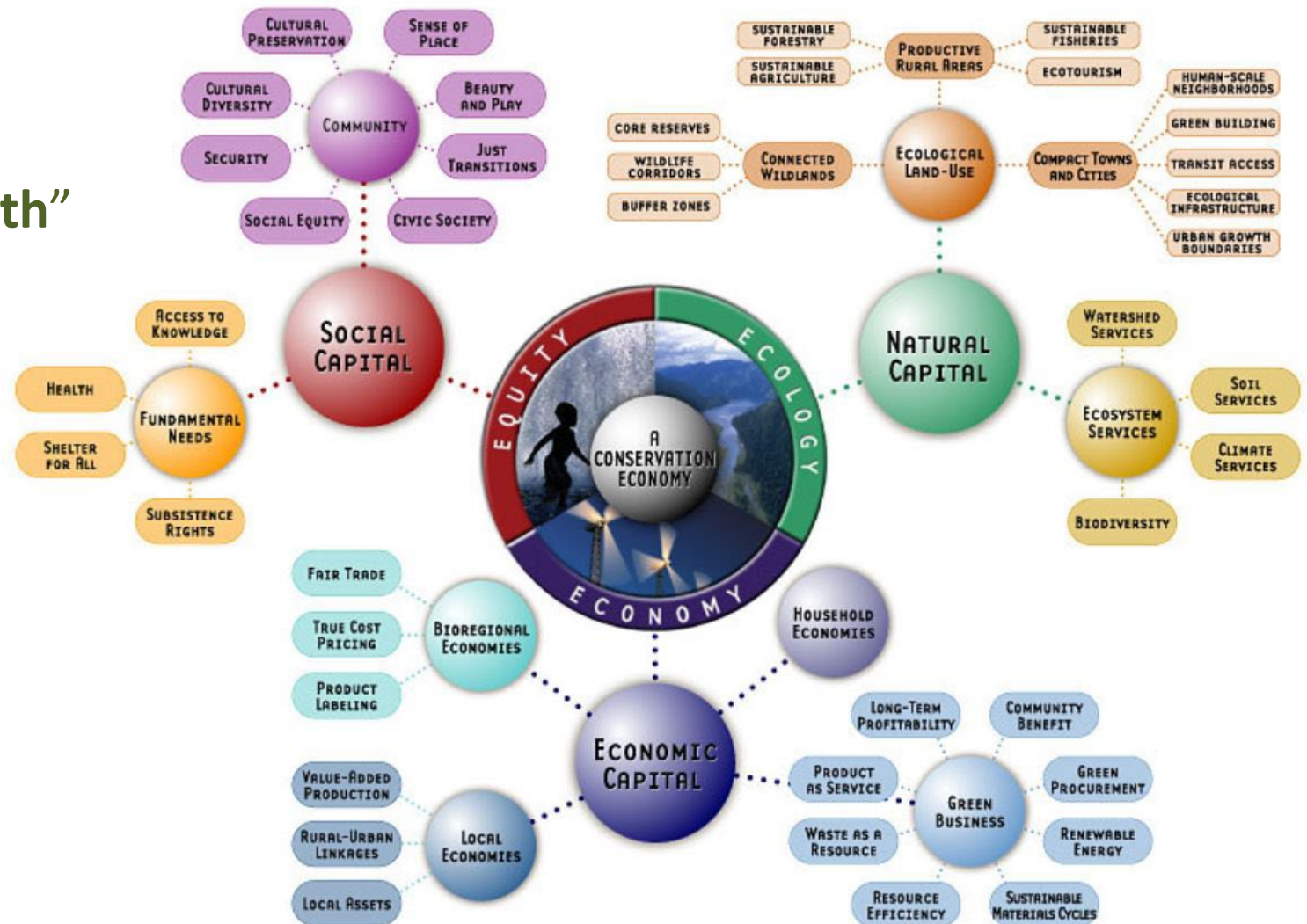
# Sustain + ability

“The ability to sustain life in Earth”

Described as the 3 pillars:

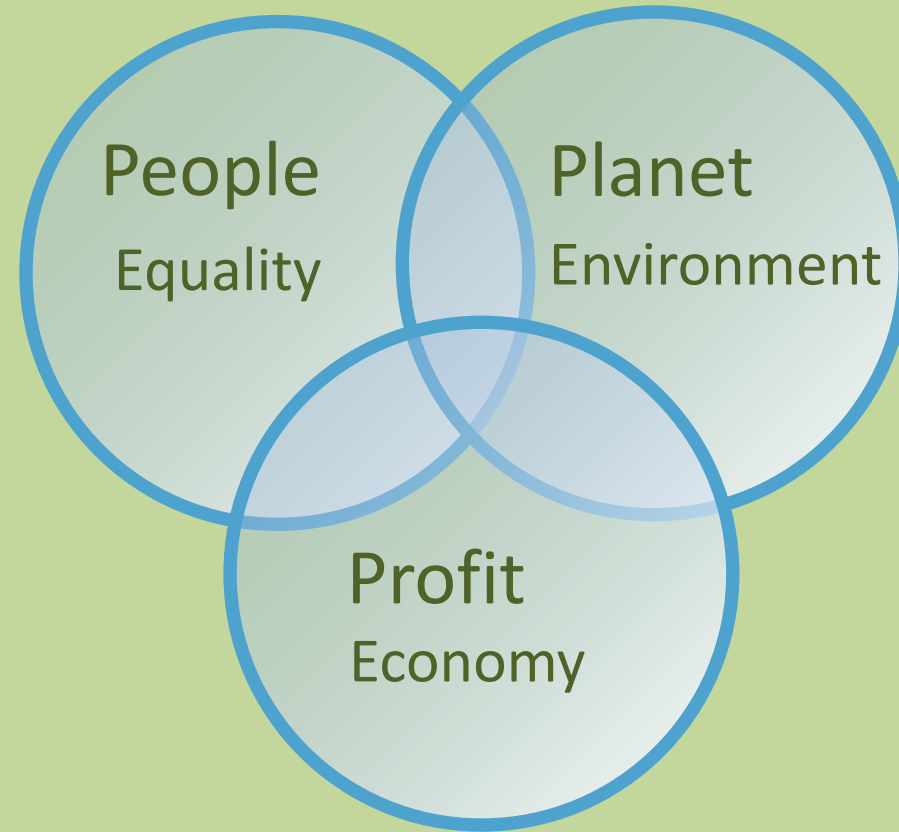
3 E's : Equity, Ecology, Economy

3 P's : People, Planet, Profit.



# What is Sustainability?

Sustain + Ability



# Circularity – Design for a Circular Economy

**An economy that is restorative and regenerative by design.**

In a circular economy economic activity builds and rebuilds overall system health. The concept recognises the importance of the economy needing to work effectively at all scales – for big and small businesses, for organisations and individuals, globally and locally.

**It is based on three principles:**

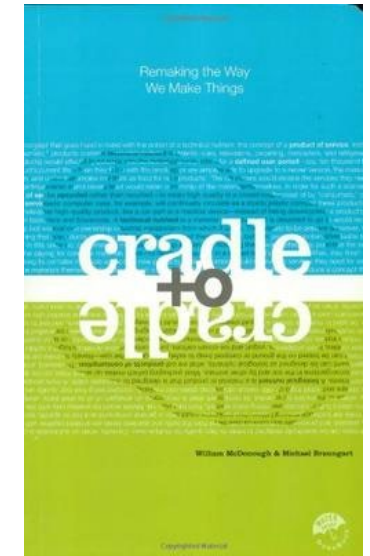
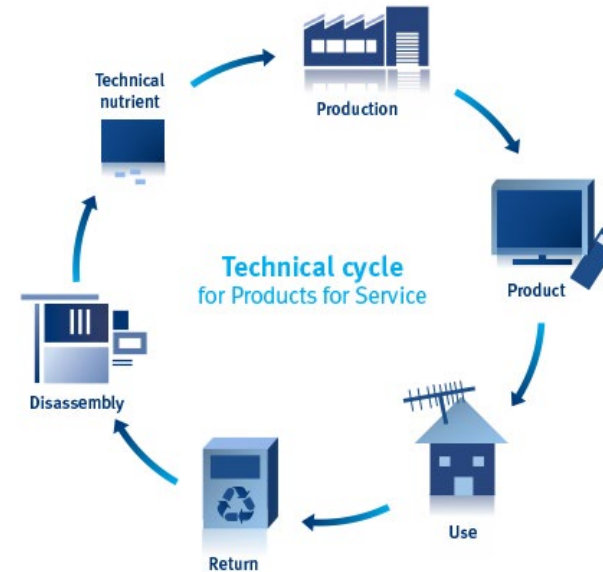
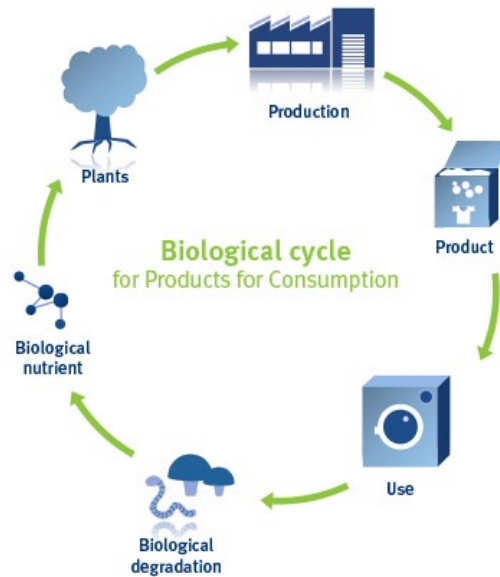
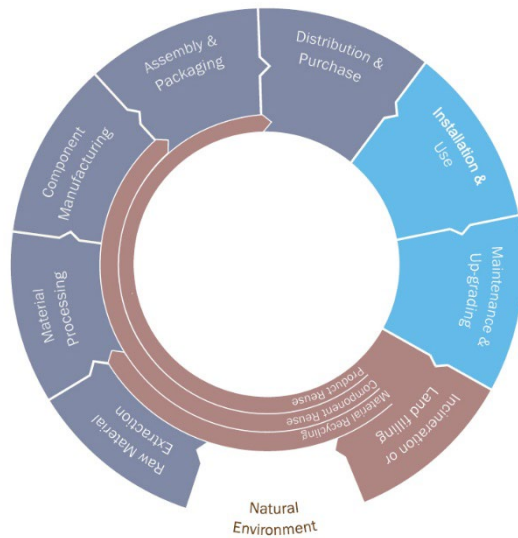
- **Design out waste and pollution**
- **Keep products and materials in use**
- **Regenerate natural systems**




# Why circular and cyclic?

## Cradle to Cradle® Basis of a circular economy

Source: EPEA GmbH 2010

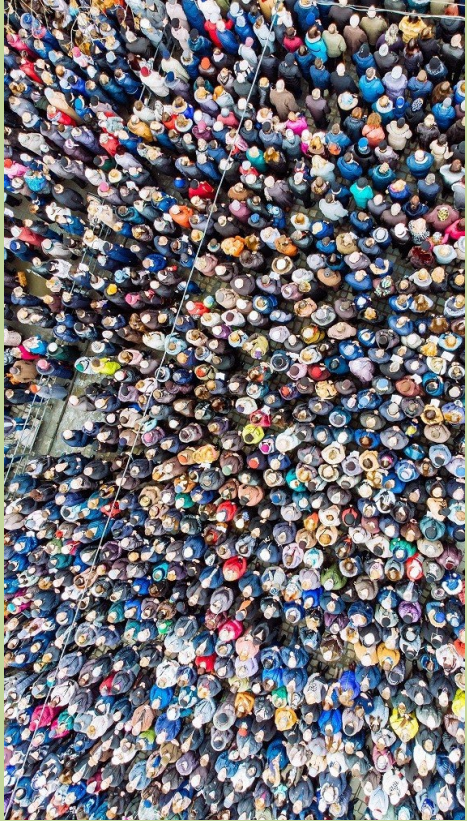


Biomimicry, Industrial Ecology, Cradle to Cradle and Life Cycle Thinking are all tools which imitate cycles and systems in nature.

The background of the slide is a close-up photograph of a green leaf. The leaf's surface is covered in a dense network of veins, with several larger, more prominent veins running across the frame. The overall color palette is various shades of green, from light lime to a darker forest green, with some yellowish highlights where the veins are thicker.

# Sustainable Challenges: water, food, wellbeing

# Challenges: water, food, wellbeing



Water



Food



Wellbeing

Tolerance, Sustainability & Biomimicry



# Tolerance & Sustainability - WATER

Too much?



# Tolerance & Sustainability - WATER

Too little?

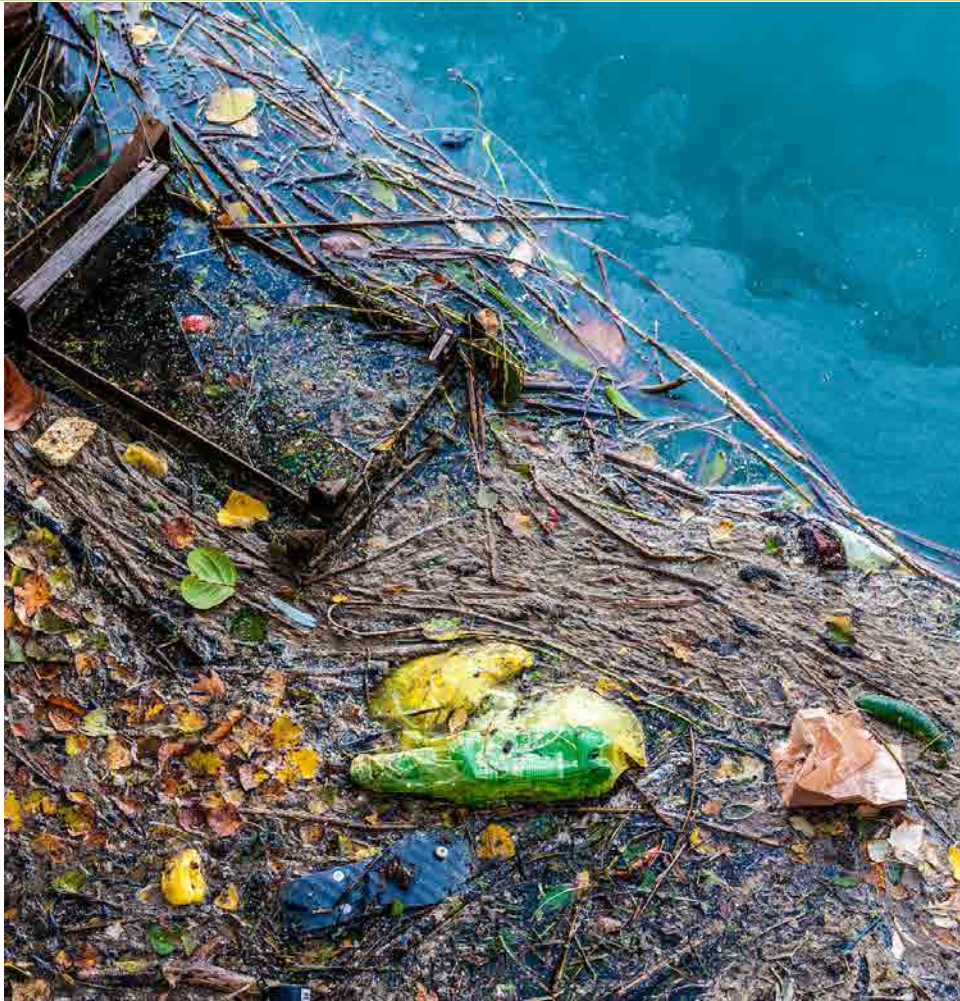


2 billion people live in countries experiencing high water stress. (UN 2019)



# Tolerance & Sustainability - WATER

Dirty or polluted?



Some 1.8 billion people worldwide drink water that is contaminated with feces.

# Tolerance & Sustainability - FOOD

Too little?



Overall, an estimated 3.1 billion people worldwide do not have access to a healthy diet

# Tolerance & Sustainability - FOOD

Too much?



# Tolerance & Sustainability - FOOD

Rotten? Contaminated?

Food security?

Transportation?

Preservation?

Nutrition?

Contamination?

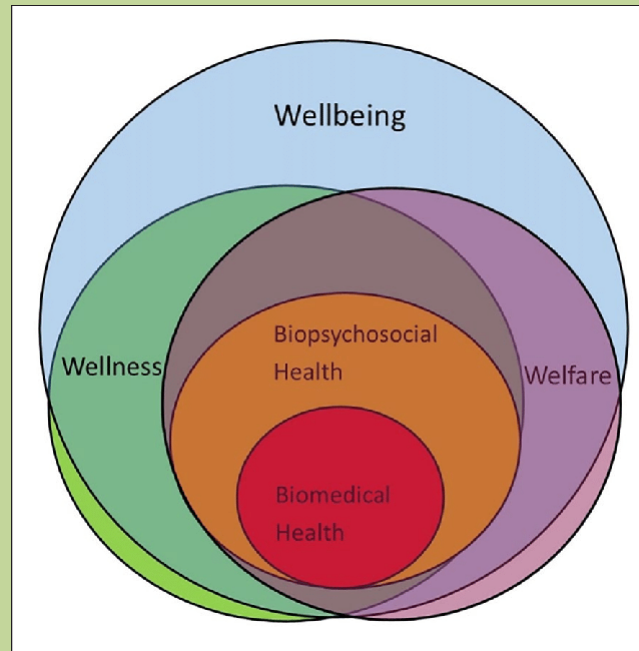
Poisoning?



# Tolerance & Sustainability - WELLBEING

‘Wellbeing is a state of positive feelings and meeting full potential in the world. It can be measured subjectively and objectively, using a salutogenic approach’.

Source: Simons G, Baldwin DS. A critical review of the definition of 'wellbeing' for doctors and their patients in a post Covid-19 era. *Int J Soc Psychiatry*. 2021 Dec;67(8):984-991. doi: 10.1177/00207640211032259. Epub 2021 Jul 9. PMID: 34240644; PMCID: PMC8592098.



Review Article

IJSP

## A critical review of the definition of 'wellbeing' for doctors and their patients in a post Covid-19 era

International Journal of  
Social Psychiatry  
1-8

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Gemma Simons<sup>1</sup> and David S Baldwin<sup>1,2,3</sup>

### Abstract

**Background:** There is no international consensus definition of 'wellbeing'. This has led to wellbeing being captured in many different ways.

**Aims:** To construct an inclusive, global operational definition of wellbeing.

**Methods:** The differences between wellbeing components and determinants and the terms used interchangeably with wellbeing, such as health, are considered from the perspective of a doctor. The philosophies underpinning wellbeing and modern wellbeing research theories are discussed in terms of their appropriateness in an inclusive definition.

**Results:** An operational definition is proposed that is not limited to doctors, but universal, and inclusive: 'Wellbeing is a state of positive feelings and meeting full potential in the world. It can be measured subjectively and objectively, using a salutogenic approach'.

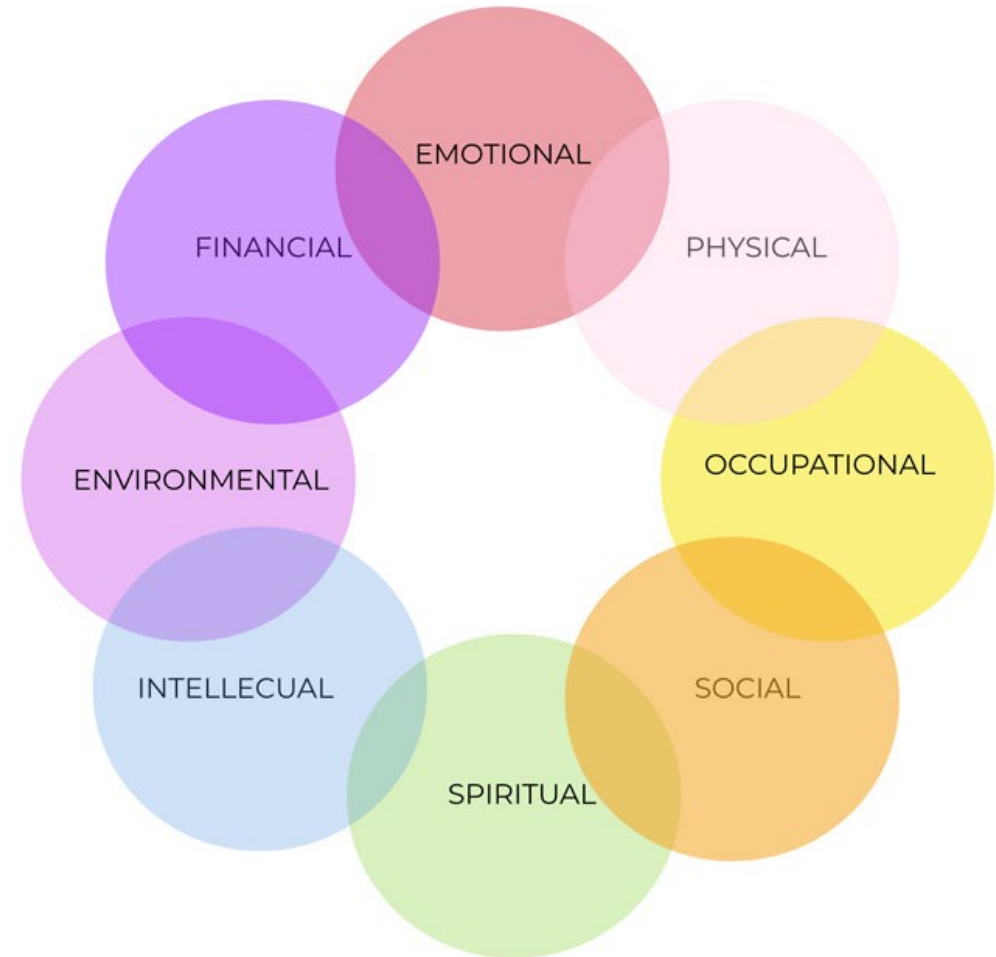
**Conclusions:** This operational definition allows the differentiation of wellbeing from terms such as quality of life and emphasises that in the face of global challenges people should still consider wellbeing as more than the absence of pathology.

# Tolerance & Sustainability - WELLBEING

## Wellbeing and Health?

Wellbeing comprises eight mutually co-dependent dimensions.

Source: Colorado State University – Pueblo: <https://www.csupueblo.edu/health-education-and-prevention/dimension-of-well-being.html>





# Tolerance & Sustainability - WELLBEING

Discussion: Which SDG's address wellbeing challenges?

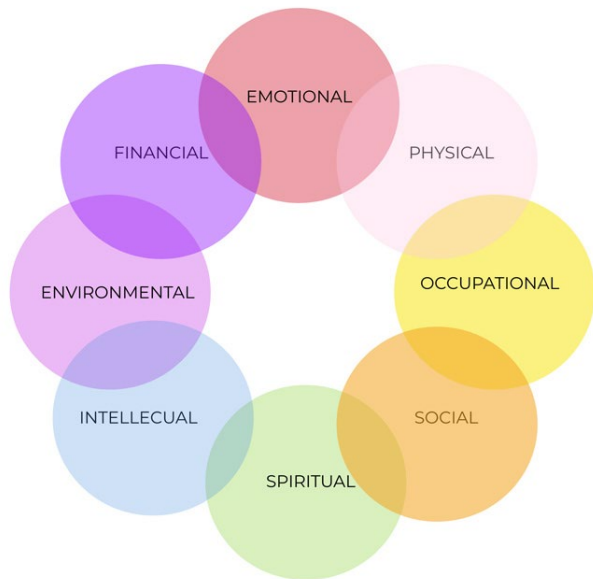


**SUSTAINABLE DEVELOPMENT GOALS**  
17 GOALS TO TRANSFORM OUR WORLD



# Tolerance & Sustainability - WELLBEING

Discussion: Which SDG's address wellbeing challenges?



**SUSTAINABLE DEVELOPMENT GOALS**  
17 GOALS TO TRANSFORM OUR WORLD



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# Inspiration in Nature for Sustainability & Circularity

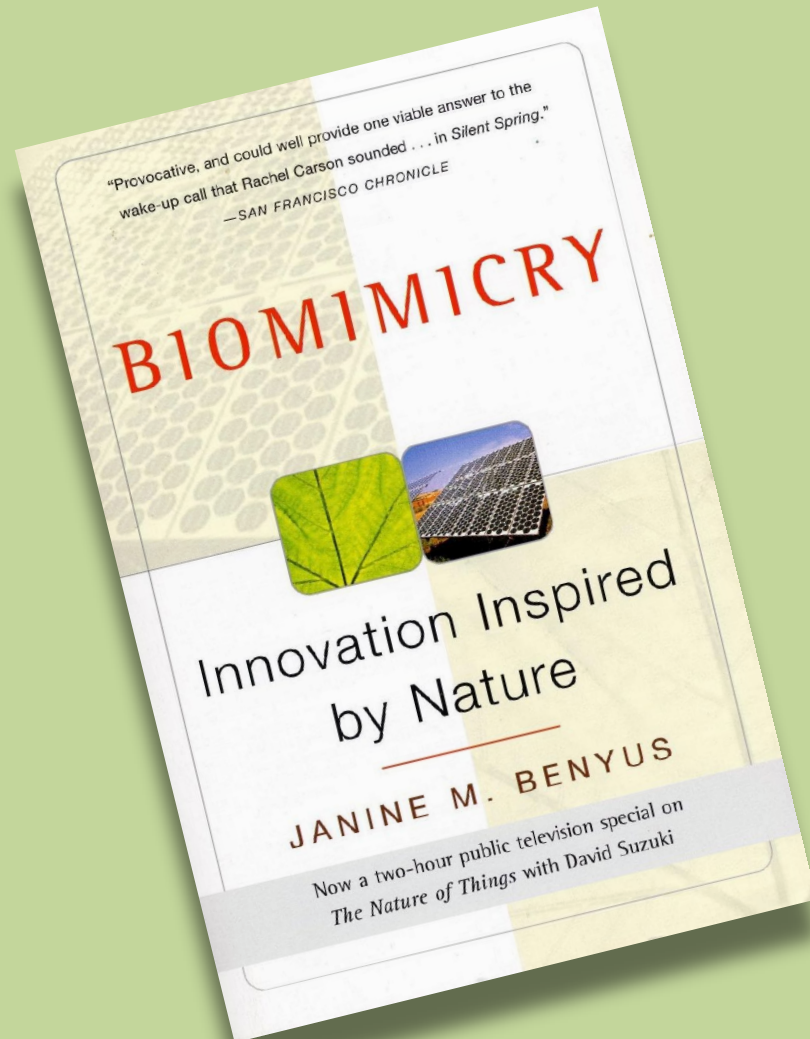
understanding nature,  
biology and ecology can help  
us to design & innovate, in a  
sustainable and circular way !



Let's use nature as  
model, measure and  
mentor, to inspire  
solutions for a better,  
sustainable, circular  
economy !

# What is Biomimicry?

## Innovation Inspired by Nature

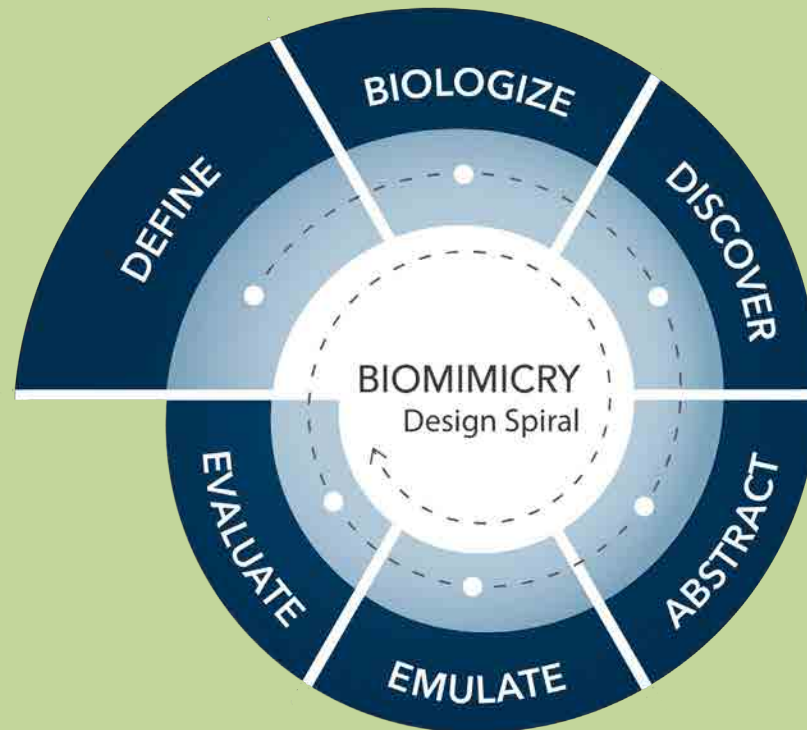


from the Greek *bios*, life & *mimesis*, imitation. Janine Benyus, 1997.

# Tolerance, Nature and Sustainability

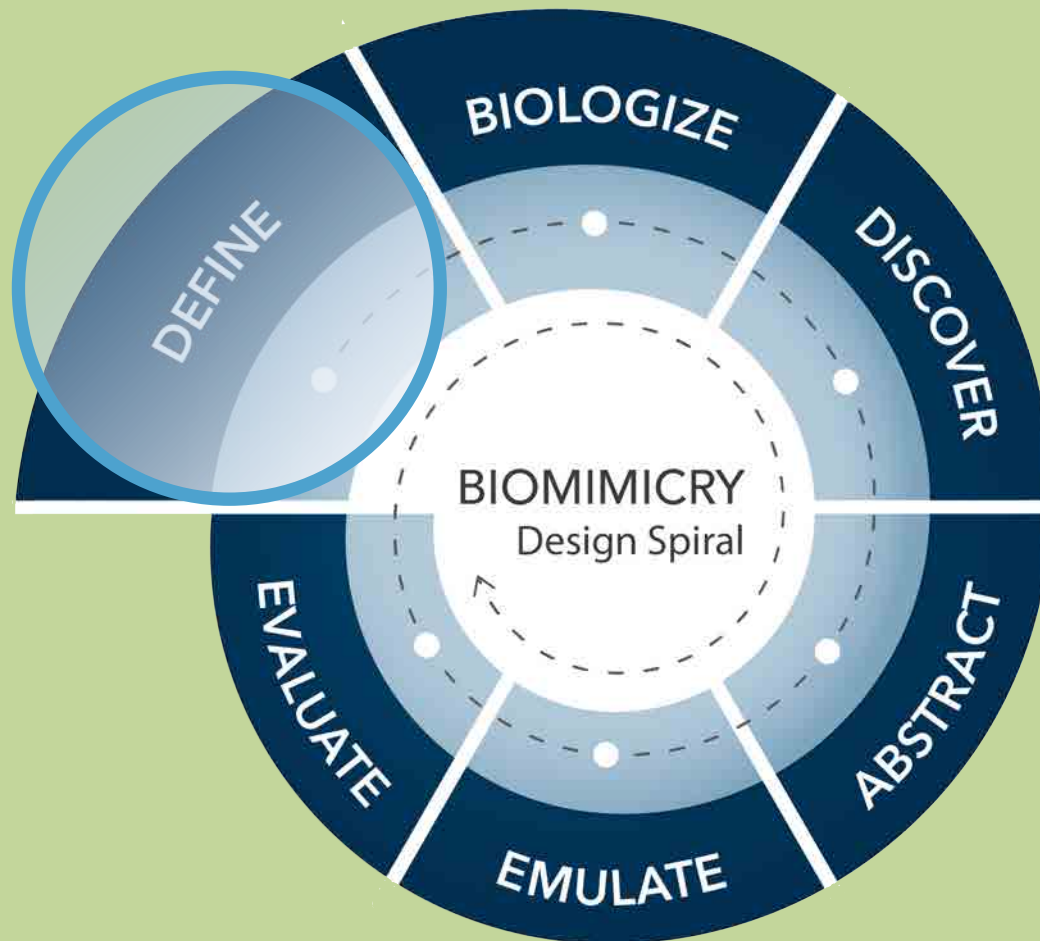
## Biomimicry design spiral process

Following a design process can be extremely helpful when setting out to solve a design challenge. The Biomimicry Design Spiral provides a succinct description of the essential elements of a design process that uses nature as a guide for creating solutions.



# Tolerance, Nature and Sustainability

## Biomimicry design spiral process: Step 1: Define

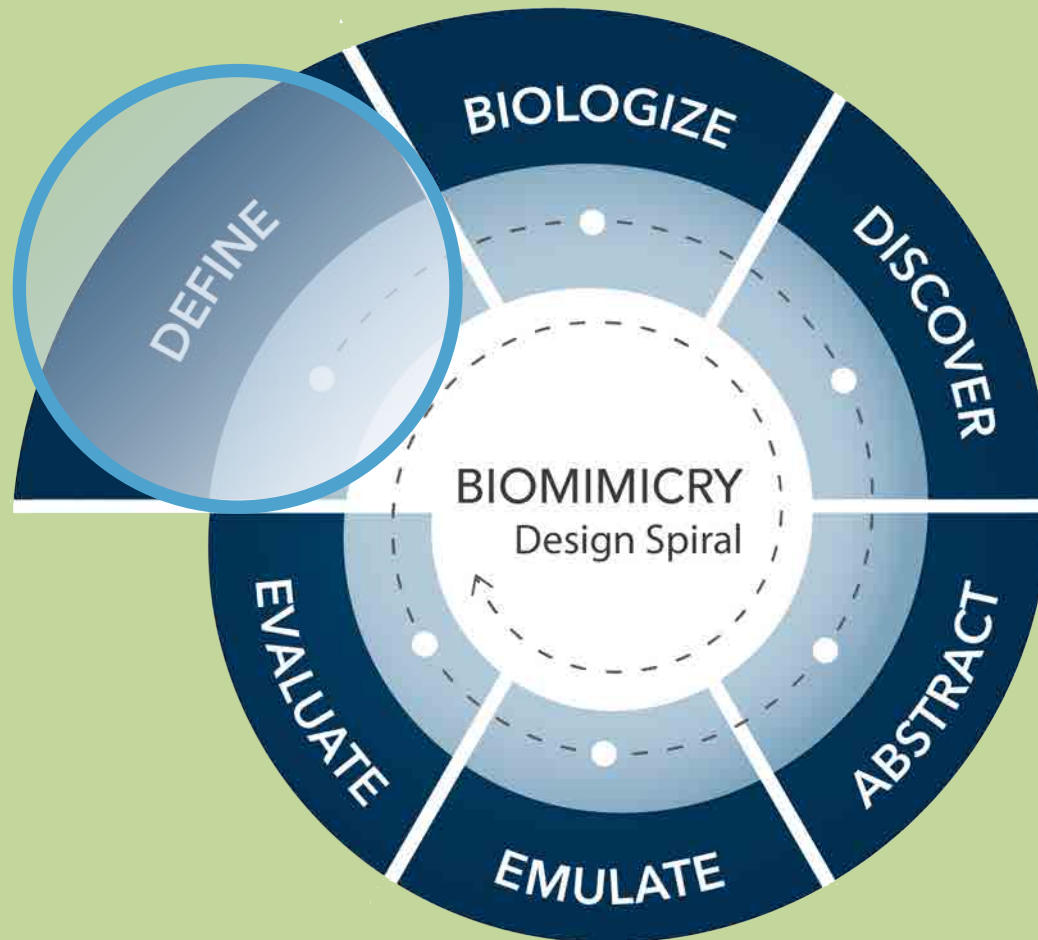


Clearly articulate the impact you want your design to have in the world and the criteria and constraints that will determine success.



# Tolerance, Nature and Sustainability

## Biomimicry design spiral process: Step 1: Define



State the challenge as a question.

Make sure you are considering context.

Take a systems view and look for potential leverage points.

# Tolerance, Nature and Sustainability

## Biomimicry design spiral process: Step 1: Define

### Define the Challenge

When beginning a design challenge, it's important to define the challenge and make sure that you and your teammates share a common understanding of what it is you are aiming to achieve with your design. Use this worksheet to define your challenge and generate a design question.

#### Frame your challenge:

Give a simple explanation of the impact you want to have. (Hint: This is not what you want to make, but what you want to your design to achieve or do.)

#### Consider context:

Describe some of the contextual factors that are important to the challenge. (Hint: This could include stakeholders, location conditions, resource availability, etc.)

#### Design question:

Using the information above, phrase your challenge as a question:

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**Design question:**  
Using the information above, phrase your challenge as a question:  
How might we \_\_\_\_\_?

**Test the question:**

**Is it too broad?** Your question should give a sense of the context in which you are designing as well as the impact you want to have and what/who it benefits. If it doesn't, it may be too broad.

**Is it too narrow?** Your question should be somewhat open-ended to ensure you haven't jumped to conclusions about what you are designing. If your question is very specific, it may be too narrow.

**Try again, if necessary:**  
How might we \_\_\_\_\_?

BIO Mimicry TOOLBOX | [Toolbox.Biomimicry.org](http://Toolbox.Biomimicry.org)

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# Tolerance, Nature and Sustainability

## Biomimicry design process: Step 1: Define



# Tolerance, Nature and Sustainability

## Biomimicry design spiral process: Step 1: Define

### Sample design questions

A good design question is neither too broad nor too narrow. Consider these examples.

Too Broad	Just Right	Too Narrow
<b>How might we end hunger?</b>	How might we connect institutional food surpluses to those in need?	<b>How might we design an app to help food pantries get more donations?</b>
<i>Hunger is a huge multifaceted problem and this statement doesn't target a specific area of intervention.</i>	<i>This statement provides enough specificity while remaining open to a variety of possible solutions.</i>	<i>This statement presupposes too many details about the solution (an app) and doesn't leave enough room for innovation.</i>

# Tolerance, Nature and Sustainability

## Biomimicry design spiral process: Step 1: Define

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How might we \_\_\_\_\_ ?

#### Test the question:

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Now you further refine your challenge using the worksheet.

# Task for next session

## Bring a well-defined challenge?

### Define the Challenge

When beginning a design challenge, it's important to define the challenge and make sure that you and your teammates share a common understanding of what it is you are aiming to achieve with your design. Use this worksheet to define your challenge and generate a design question.

#### Frame your challenge:

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#### Design question:

Using the information above, phrase your challenge as a question:

How might we \_\_\_\_\_ ?

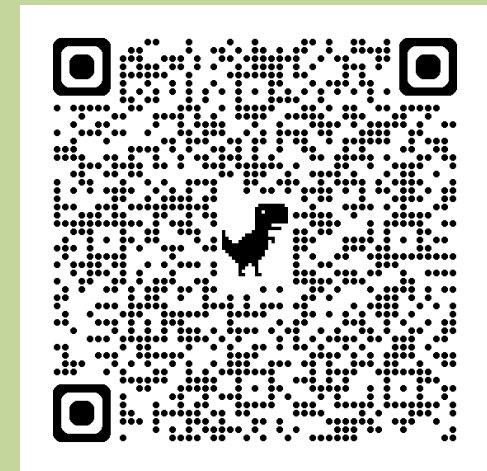
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Is it **too narrow**? Your question should be somewhat open-ended to ensure you haven't jumped to conclusions about what you are designing. If your question is very specific, it may be too narrow.

Download your worksheet, and in groups, create a one-minute video defining your challenge. Use the sheet as a guide.

Upload in youtube or vimeo, and place link in Figjam for next session



# Tolerance

Coexistence! Living in peace!  
Is it only about People?

How about Tolerance (coexistence, living in peace) with all forms of life in our planet?

A landscape of rolling green hills under a sunset sky. The hills are in various shades of green, from light to dark, and the sky is a mix of orange, yellow, and red. The text is overlaid on the upper part of the image.

May the values of **tolerance**  
allow us to coexist, in peace,  
with all forms of life.



# Resources

<https://www.ellenmacarthurfoundation.org/our-work/activities/circular-economy-in-cities>

<https://www.circulardesignguide.com/methods>

<https://www.ellenmacarthurfoundation.org/circular-economy/concept/infographic>

[http://www.conservationeconomy.net/pattern\\_map/noflash/index.html](http://www.conservationeconomy.net/pattern_map/noflash/index.html)

<https://toolbox.biomimicry.org/methods/process/>