

# The Design Competencies Framework

1<sup>st</sup> Edition

The Design Competencies Framework

Developed under the PhD Research project “Paradigm shift in Design Education. Contributions for a New Design Competencies Framework to foster Strategic Innovations, Sustainable Solutions and Social Change”

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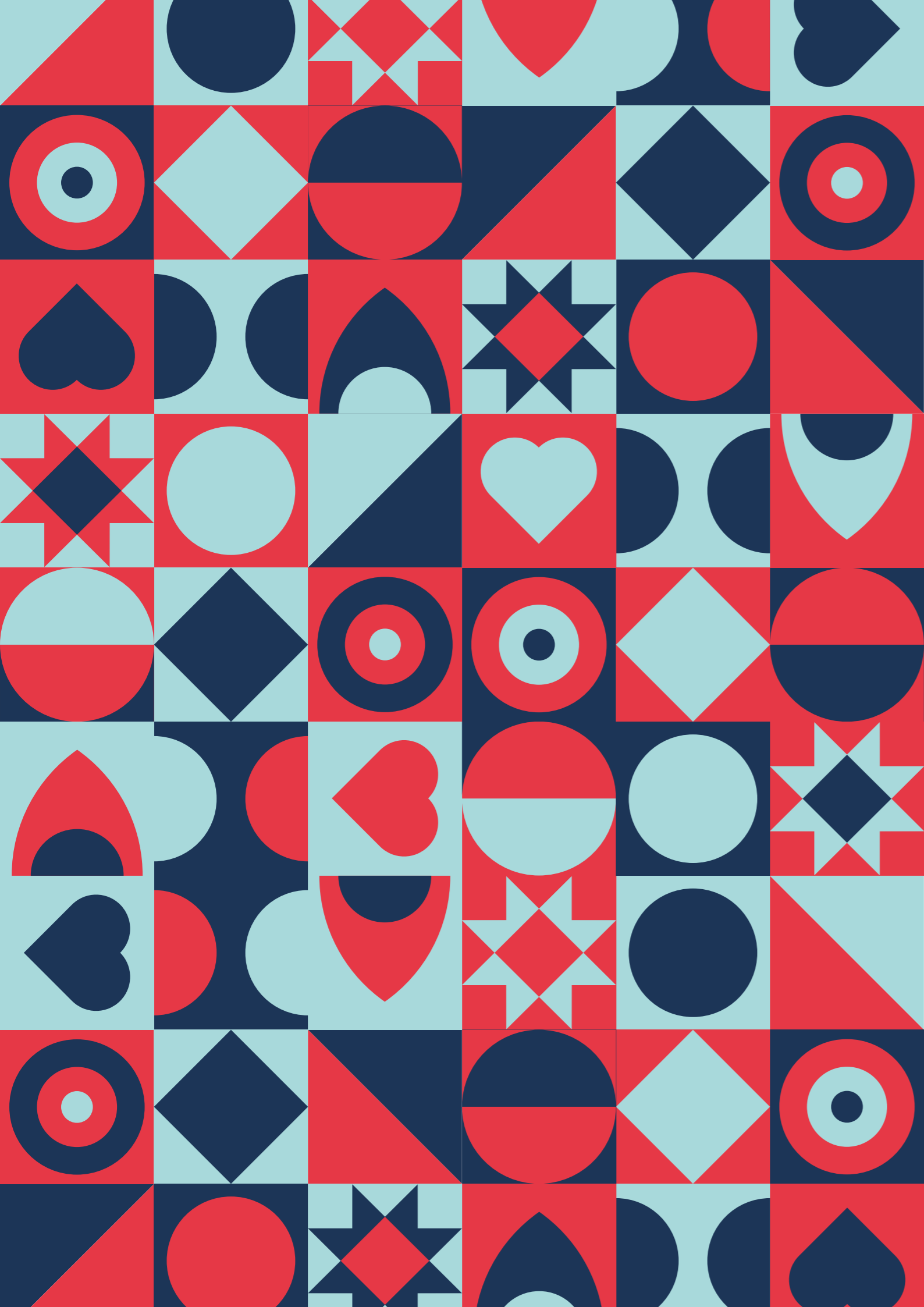
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# The Design Competencies Framework

1<sup>st</sup> Edition



## Introduction

The world is facing crises that find an unprecedented match in contemporary history. Populations are growing in the cities every year, making the high density a danger for healthcare and weakening the structures in the more rural areas. Groups of immigrants are entering developed countries frequently, seeking a better life and opportunities. Jobs are at risk due to automation and artificial intelligence. Violence and terror increase as inequality and economic instability rises, especially in marginalized communities and countries. Privacy and cyber-security are issues (UNESCO, 2015) embedded in today's society hidden in the thousands of apps and websites we deal with every day, where personal data is the new gold. The industrial era and the urge for consumption have generated a never seen environmental crisis. The elderly population grows in many countries that struggle to guarantee social retirement for younger generations. This list is much longer, and it keeps growing.

This context is the background of a paradigm-shifting moment for the world and Design. Traditionally focused on its contribution to economic growth, wealth and prosperity, Designers now face complex problems that challenge their skills. The focus on growth is outdated, and it is also the source of many of the environmental and societal problems the world faces now.

In that sense, Design can be seen as part of the problem (Armstrong, Bailey, Julier, & Kimbell, 2014; Manzini, 2007), especially on the environmental aspect (Russ, 2019). Design contributes to producing more goods and entices consumption, eternizing the idea that only the new is good, reshaping the sense of 'old' to anything else that is not the latest of models. However, the way Designers act is deeply rooted in how they navigated their academic path. Designers are still coming out of the universities equipped with competencies and a mindset that leave them little option but to follow the traditional approach.

Design as a profession is a critical component in shaping the world of tomorrow, and Design Education may act as a shifting mechanism to enable such a transitory pathway.

The Design Competencies Framework is the outcome of a research project that questioned, amongst other things:

*What are the competencies need for Designers to address the complex problems faced in a paradigm-shifting world?*

*How can Design Education foster these new designers to act as agents of change?*

The result was the identification of a set of competencies needed for Designers to tackle the challenges they have been faced and their systematization into a model that hopes to help Designer Educators bring to life Designers that will act as agents of change towards a more sustainable and promising future for the planet and society.

## Purpose

The Design Competencies Framework's primary purpose is to support Design Education to understand what competencies are to be developed during the design courses to prepare students for a paradigm-shifting world. Also, it presents a vast number of tools to be introduced and used in academic design projects that can enable the development of such competencies. By presenting a clear relationship between tools and competencies, Design instructors can structure projects using consolidated design tools and understand the expected outcome regarding students' expected mindset.

The Design Competencies Framework should be a flexible and adaptable source of inspirations that can – and should – be adapted to fit the reality of different context. While initially directed to support Design Education, a secondary use of the framework by non-formal learning environments and professional context is well seen and encouraged. Experienced designers who lack some of the framework's competencies are welcome to use it as a starting point to their learning process and professional growth.

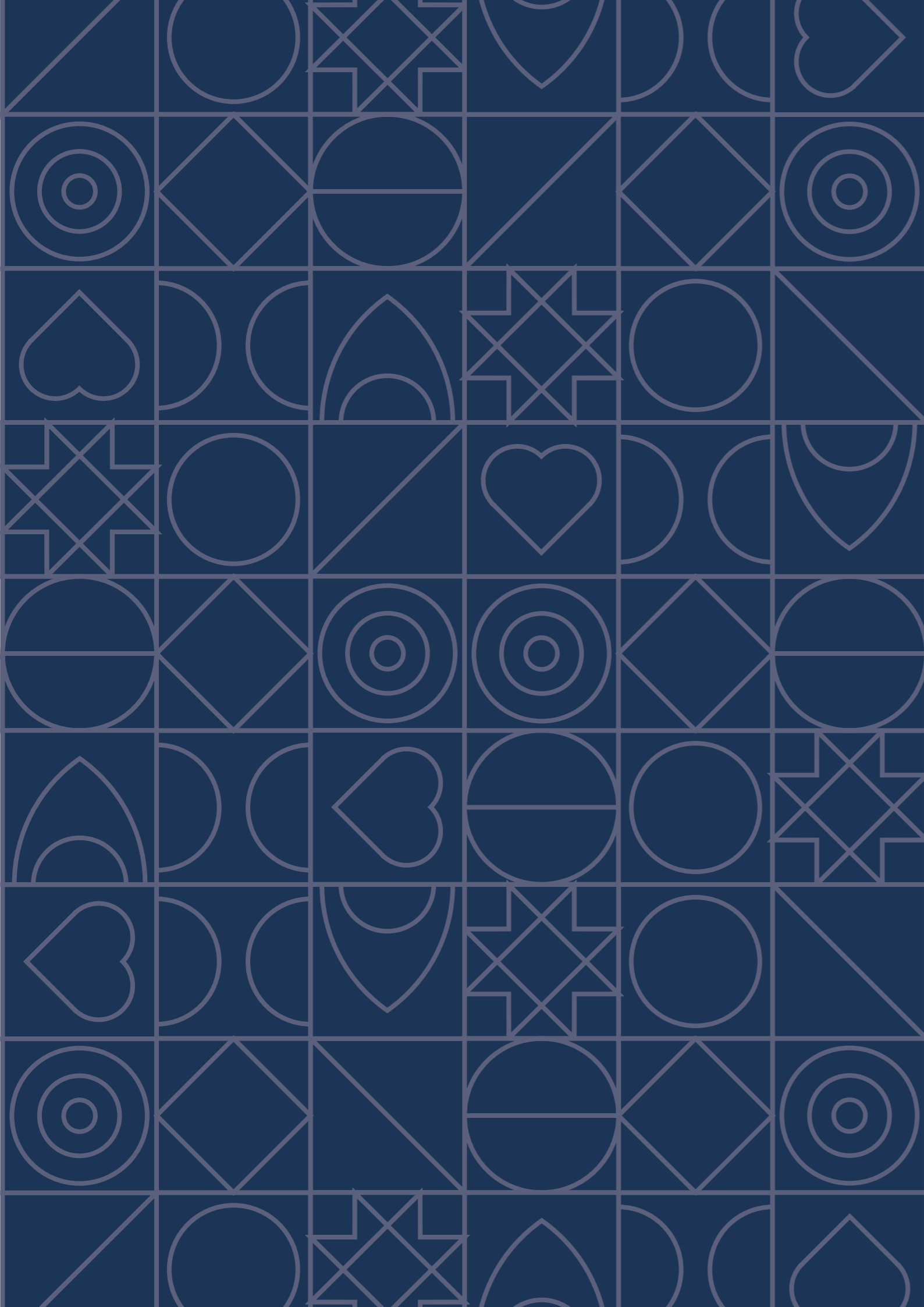
## Principles

### **Equality, Autonomy & Openness**

The Design Competencies Framework was built upon three principles that guide its structure and use: *Equality*, *Autonomy* and *Openness*.

All the competencies identified in the framework are treated equally. There is no level of importance or core competency. The same concept is applied to the Areas of competencies. Whilst it is vital that – with a given time – all competencies are addressed and developed, there is no defined starting point. The reader has the autonomy to explore and identify, according to the project, which competencies should focus on and, consequently, Enablers to be used.

Different projects demand distinct approaches as context asks for particular paths. Furthermore, different instructors and experiences facilitate the use of specific tools and methods. The Design Competencies Framework is open for readers to discover and tailor the best use of it. It does not define or suggests any path to follow or logical sequence. This principle also allows the users to introduce new tools and methods, adapting the framework to their particular needs.



# **A quick guide to the Design Competencies Framework**

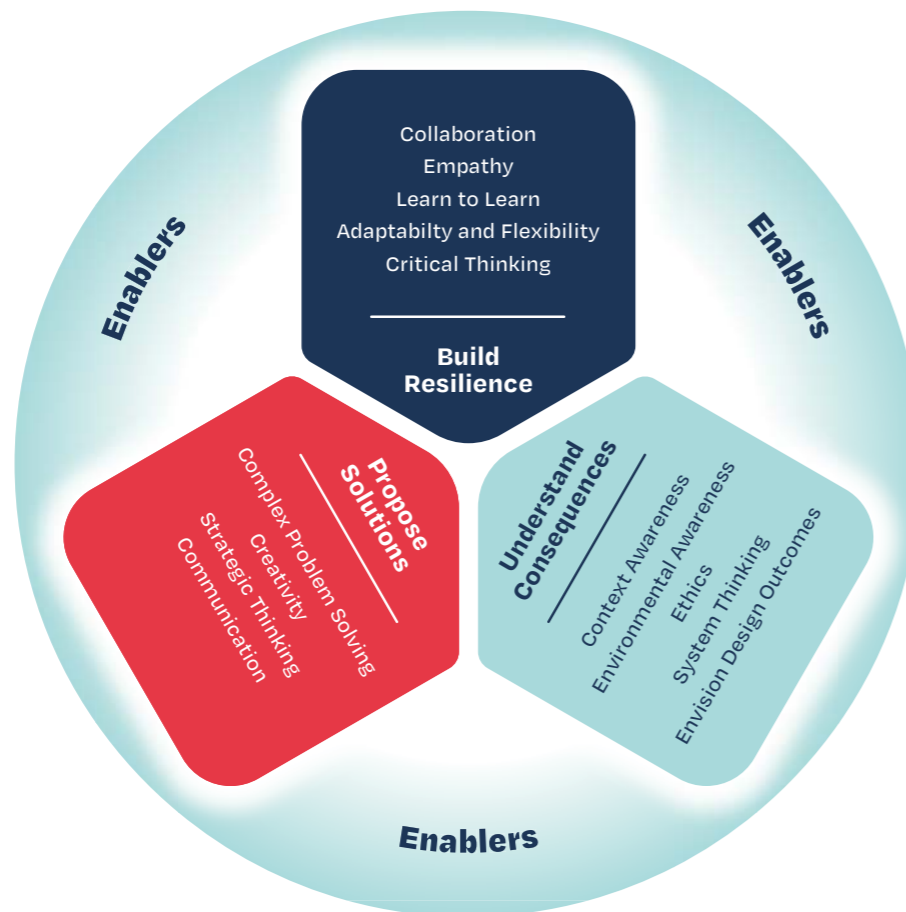
## The parts

The Design Competencies Framework invites design educators to re-think Design Education towards a more responsible future. For that, the model was built in three dimensions: *Areas*, *Competencies* and *Enablers*. The *Areas* contain four to five *Competencies*, while the *Enablers* help foster the development of the *Competencies*.

Figure 1.  
The Design Competencies Framework's Dimensions



Figure 2.  
The Design Competencies Framework's Overview



## Areas

The framework is organized in 3 different areas: *Build Resilience*, *Propose Solutions* and *Understand Consequences*.

*Build Resilience* groups competencies that aim to equip future designers to be flexible and adapt quickly while learning from a collaborative approach and developing critical thinking that enables a lifelong learning capability.

*Propose Solutions* accounts for building creative and innovative thinking to drive solutions that address sustainability issues. It also enables future designers to strategically communicate the value of such proposals to businesses and society.

*Understand Consequences* congregates the competencies that invite Designers to understand complexity and how the outcomes of their actions can affect the world's sustainability. By providing context to the design process, designers can develop a holistic and systemic approach.

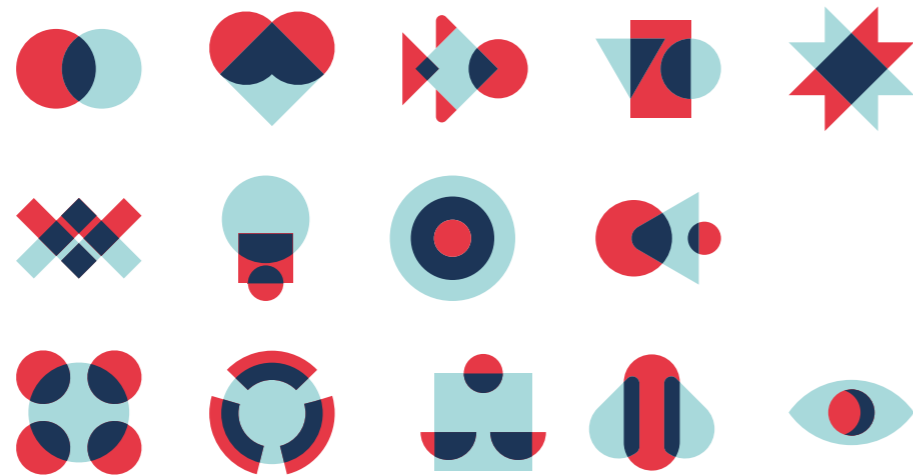


Figure 3.  
The Design Competencies Framework's Areas

# Competencies

The Design Competency Framework identifies a total of 14 unique competencies. Each Competency was assigned to an Area, thus grouped by some level of affinity.

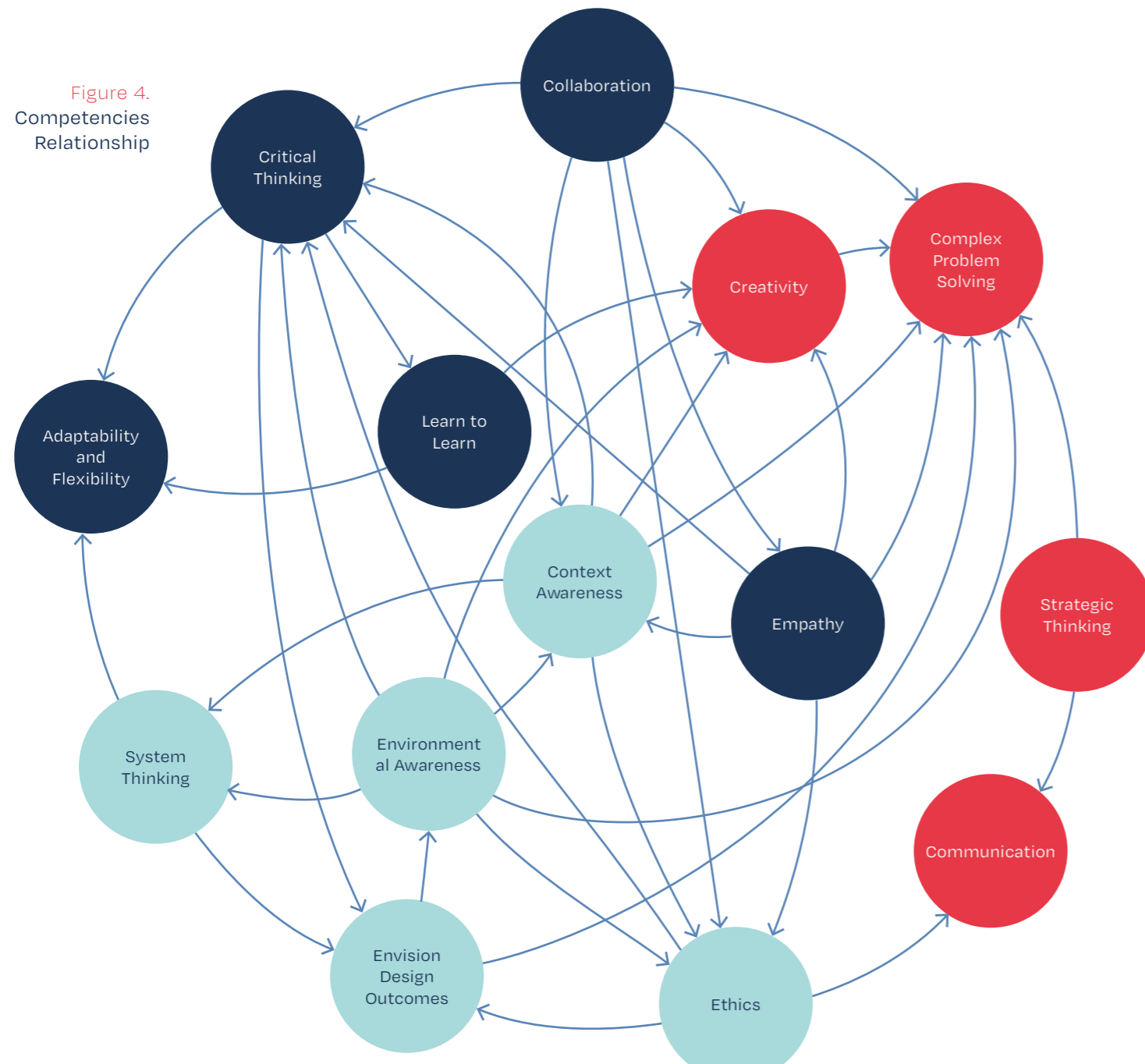
Figure 3.  
Competency  
Iconography



Collaboration	Collaboration is the ability to collaborate as a team, with stakeholders, experts, and users to enrich the creative process. Collaboration provides empowerment to communities and helps build Resilience, whilst it avoids decisions based on the Designer's biases.
Empathy	"Empathy is the capacity to step into other people's shoes, to understand their lives, and start to solve problems from their perspectives." (IDEO.org, 2015, p. 22)
Learn to Learn	Learn to Learn is the ability to build autonomy through actively and continuously crafting new knowledge alone, with others, during and after their formal educational path.
Adaptability and Flexibility	Adaptability and Flexibility are the Designer's ability to adjust their approach and actions as new variables are presented in the project's context.
Critical Thinking	Critical Thinking is the Designer's ability to analyse and reflect clearly about information and ideas that support their decision-making. Equally important, designers must be able to evaluate their practice and their impact on society critically.
Complex Problem-Solving	Complex Problem-Solving is the Designer's ability to understand and address problems in a non-linear approach, identify hidden connections and propose solutions that impact society and the world at many levels.
Creativity	Creativity is the original and Iterative thinking that leads to innovative solutions which provides value to the social, economic and environmental contexts.
Strategic Thinking	Strategic Thinking is the ability to analyse contextual information and make decisions bases on the desired outcome while balancing the economic, social and environmental perspectives and impacts.
Communication	Communication is the Designers' capability to interact with peers and other stakeholders during the design process, present and pitch design ideas, share findings, and evidence the values of a sustainable approach to Design to the overall community.
Context Awareness	Context Awareness is the Designer's ability to investigate how context (political, cultural, social, economic and historical) may affect the solution to a problem and Design accordingly to provide the best response possible.
Environmental Awareness	Environmental Awareness is the ability to understand the relationship of their work in the environment and create a more sustainable practice.
Ethics	Ethics is the moral obligation to respect every human, living system and to serve society as a whole, preventing harm to be done as a consequence of their actions.
System Thinking	System Thinking is the ability to analyse and identify, from a holistic perspective, the parts and forces that constitute a system and its dynamics.
Envision Design Outcomes	Envision Design Outcome is a designer's capacity to critically understand the impact and consequences of their actions by combining speculative future scenarios and past experiences.

Whilst the framework presents the competencies as unique instances, they are not separated at all levels. Being them competencies for designers who pursue a practice that tackles society's complex problems, they are expected to present some similarities, and the boundaries between competencies are blurred at times. Competencies may help foster and influence others as they contain strong relationships, some stronger than others. The relationship map shows the conceptual connections amongst all competencies. The colours indicate the Areas, dark blue for Build Resilience, red for Propose Solutions and light blue for Understand Consequences. The arrows show the influence direction.

Figure 4.  
Competencies  
Relationship



In order to understand the relationships, it is possible to isolate a competency and analyze how it influences and is influenced by other competencies. Taking the competency System Thinking as an example, by developing this Competency, the students can also become more Flexible and Adaptable. System Thinking also allows for a better understanding of Design Outcomes, letting designers connect their actions with their practice consequences. On the other hand, Context and Environmental Awareness are key components of a systemic thinker.

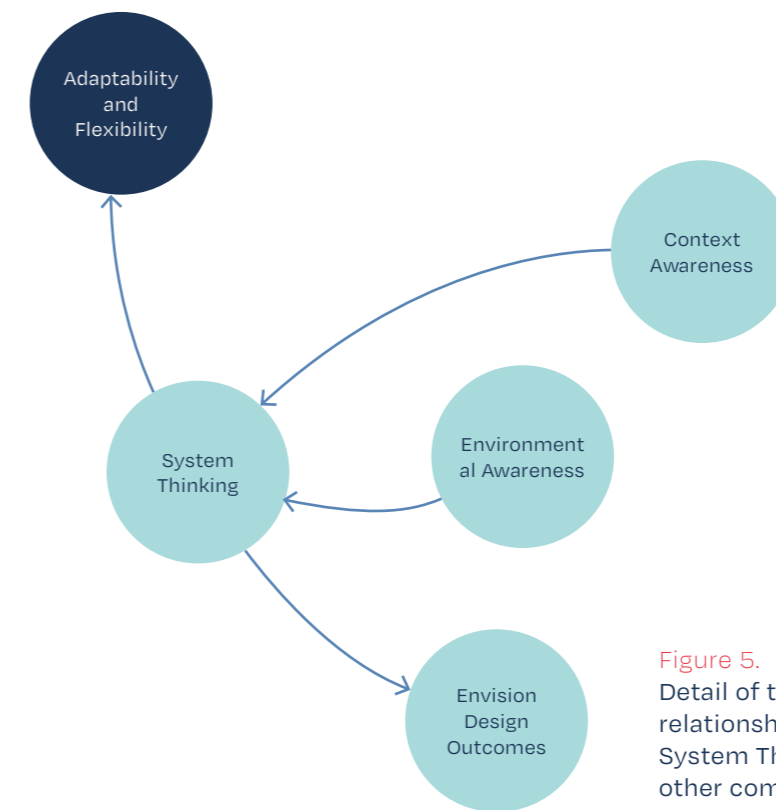


Figure 5.  
Detail of the  
relationship between  
System Thinking and  
other competencies.



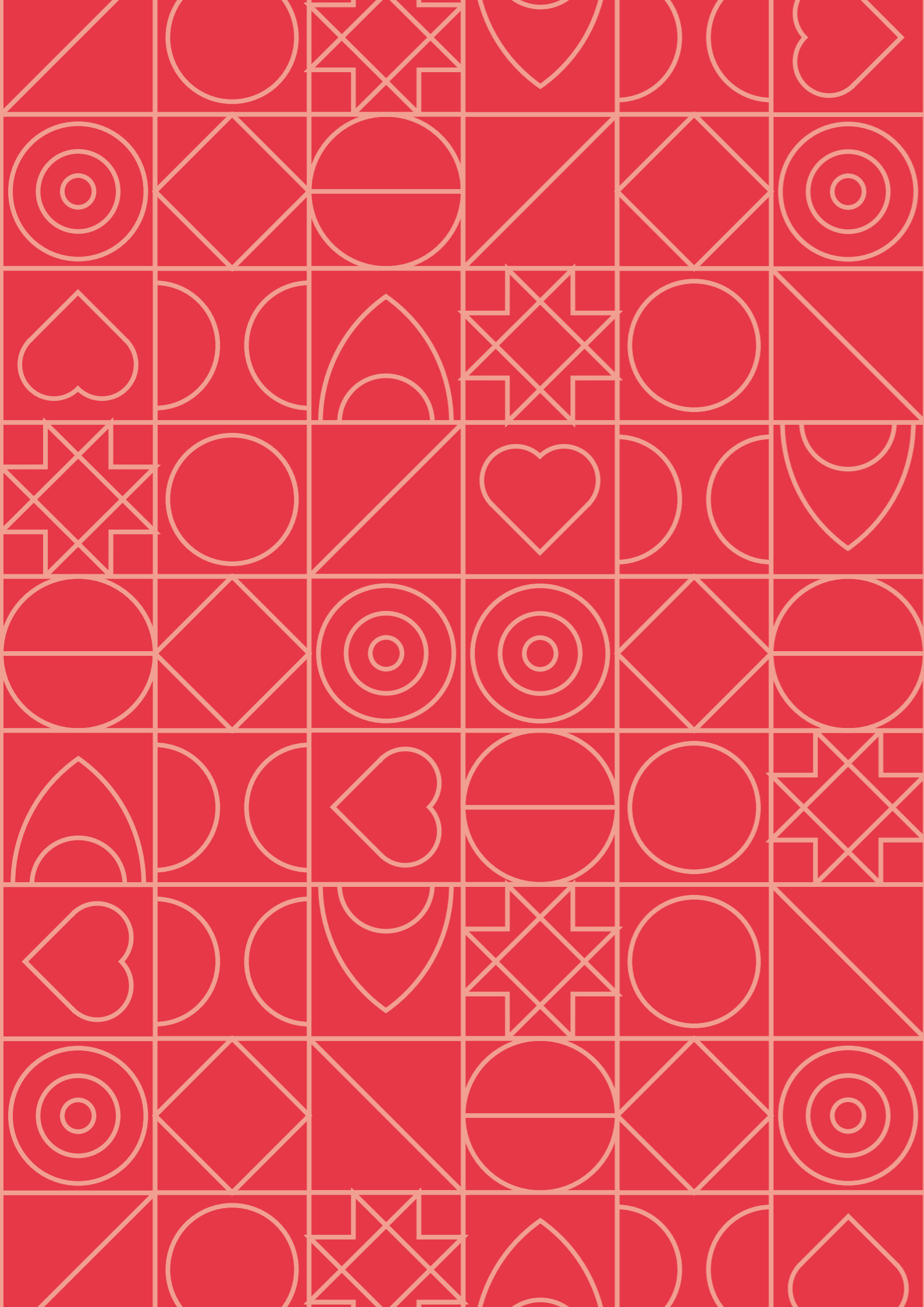
# Enablers

Enablers are design tools, methods, and techniques borrowed from publicly available resources, such as design toolkits, that help develop the framework's competencies if appropriately used in a design process. This initial version of the framework features 185 Enablers identified and catalogued from 12 design toolkits available online.

The proper use of each tool requires experience. During their initial path, design students should be guided and supervised by experienced teachers responsible for introducing them to the design process and tools. This collaboration between teachers and students can help build autonomy as projects scaffold in complexity, and students get a better understanding of each tool and how they help them build the desired Competencies.

Unlike the previous two Dimensions that compose the Design Competency Framework, the Enablers are not fixed elements of the model. As the framework evolves, it is expected to feature new tools, methods and techniques that help foster the competencies that will help Designers address sustainability challenges.

The final part of this document showcases a list of all the Enablers identified in this first version. The list is organized alphabetically, and it is composed of the Enabler's name, the competencies each enables and the toolkit they are featured at. With that information, Design Educators can learn more about each of the tool before using them in the classroom. Likewise, they play an essential source of information for students to reference in the future.



**How to use  
the framework  
in the Design  
Education  
environment?**

First and foremost, there is no one way to adopt the Design Competencies Framework. Teachers and instructors are more than welcome to find the best fit for it in their classrooms. While such an open-ended approach may provide flexibility, it also gives little guidance to those seeking a structure to introduce the framework into their practice. To support those looking for a basic structure, we suggest that teachers follow some or all the steps described next.

### Look for design opportunities within the local community

The Design Competencies Framework encourages Design Education and Educators to adopt the Sustainable Development Goals (SDG) proposed by the United Nations (2015) at the Agenda 2030. There are 17 SDGs that account for the crises faced by society. These goals provide the perfect opportunity for Design Students to address the problems found in their community, creating great relevance to their work.



Figure 6.  
UN's 17 Sustainable Development Goals

By working with and for the local community, professors can identify design opportunities that will provide real context and allow students to solve complex problems during their academic path. The embracement of the UN's SDGs is the starting point for developing the necessary competencies and mindset for Designers to become agents of change.

### Define the competencies to focus on for each project

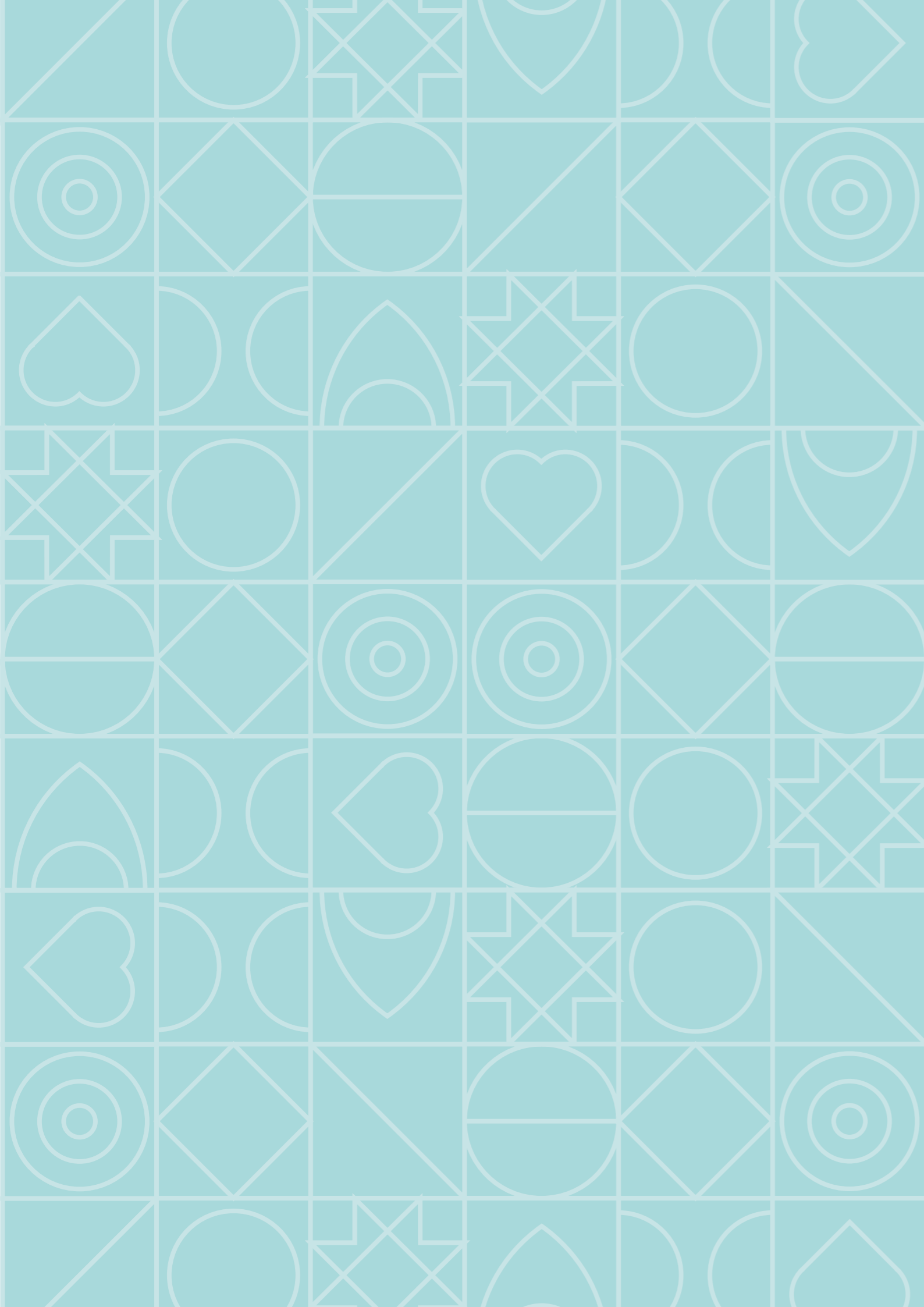
The Design Competency Framework is composed of 14 competencies, but not all should be focused on at all times. For each project, define the competencies that should be addressed and discuss them with the students. They should have a clear understanding of what and why they are learning, as well as the expected outcome. Although the focus might be on specific competencies, the strong relationship amongst all competencies will allow for other competencies to also be touched.

### Pick the Enablers

After defining the competencies that will be addressed during the design project, choose the design tools or Enablers to use during the project. At the end of the framework, there is a list of all Enablers, Competencies they help foster, and design toolkits where they are featured in. Design professors must be comfortable with the tools they choose for the project, as they need to facilitate their use with the student. Keep it simple and choose only the necessary tools for each project so that the process is not too overwhelming for the students.

### Discuss, discuss and discuss

During and after the design project, discuss with the students how the tools they are using help achieve the expected outcome. Listen to what they have to say and ask them to self-assess their progress. Iterate for future projects based on the learnings.



# **The Design Competencies Framework in detail**

# Build Resilience



Competencies that aim to equip future designers to be flexible and adapt quickly while learning from a collaborative approach and developing critical thinking that enables a lifelong learning capability.

Competencies

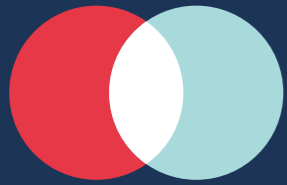
Collaboration

Empathy

Learn to Learn

Adaptability and Flexibility

Critical Thinking



# Collaboration

**The ability to collaborate as a team with stakeholders, experts, and users to enrich the creative process. Collaboration provides empowerment to communities and helps build Resilience, whilst it avoids decisions based on the Designer's biases.**

Cluster Build Resilience

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Enablers 54

Designing alone or only with the design team is not enough anymore to tackle social and environmental problems. Designers must create a common practice of inviting and participating stakeholders into different parts of the process as a crucial method of being exposed to new perspectives.

Collaboration should be seen as a broader helm where many variations fall underneath it. Co-creation, co-design, participatory Design, cooperation and transformation Design are some of the forms of Collaboration that Designers must be comfortable with. Although all categorise some form of Collaboration, they may differ in detail.

During a collaborative process, Designers must be ready to assume two distinct roles. The first role is of a creative partner, where the Designer works alongside other stakeholders to discuss and create solutions together. A second role that Designers might assume is the role of the facilitator. In that particular case, Designers withdraws from participating in the discussion or idea generation to facilitate the process through a structured process such as a workshop.

Collaboration may assume different levels. Designers may work in teams with other Designers or on multidisciplinary endeavours where professional from other spheres are brought to the project as part of the creative squad. One example of this is the growing presence of anthropologists and social scientist in the Design field. Other Collaboration levels may include working with field specialists, subject matter experts, clients and users, which evidentially may vary according to the nature of the project.

Besides helping designers achieve better results from the process, *Collaboration* is a fundamental approach to share knowledge and empower communities. When participating in parts of the process, users, clients, and citizens become better equipped to tackle problems without relying on professional help. By doing so, they help society become increasingly more resilient.

An expected by-product of Collaboration is that the end product of the design process might face less resistance as users and clients are co-authors. Once participating in the process, they understand the importance

of the solution without further convincing. The value of Design itself is also perceived as stakeholders are exposed to a deeper part of the process, not only the results.

*Co-creation sessions and workshops* are efficient tools to help foster Collaboration in the design process. During collaborative activities, Designers work directly with the people they are designing for (IDEO.org, 2015). Bringing the community to the creative process provides rich insights whilst empowering them as they are invited to design alongside the project team.

Another example of Collaboration *Enabler* is *Cultural Probes*. Seen as a more unobtrusive technique of collecting user's information (Amsterdam University of Applied Sciences, n.d.), *Cultural Probes* provide participants with ways to document themselves during a period of time. The results are given to the design team to dig into and find valuable insights and design opportunities.

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## Enablers

Tool name	Tool name
1 App Disruption	10 Co-discovery
2 Assessment Criteria	11 Cognitive map
3 Backcasting	12 Collage
4 Brainstorm	13 Conversation Starters
5 Build a Community	14 CSDi Matrix or Knowledge Hunt
6 Build a Team	15 Cultural Probes / Design Probes
7 Card Sort	16 Day in the life
8 Circular Brainstorming	17 Define Goals and Success
9 Co-Creation Session or Workshop	18 Dot Voting

<b>Tool name</b>	
<b>19</b>	Draw It
<b>20</b>	Drivers and hurdles
<b>21</b>	Emotional Journey Map
<b>22</b>	Empathy in action
<b>23</b>	Ethnography
<b>24</b>	Extremes and Mainstreams
<b>25</b>	Future workshop
<b>26</b>	Group Interview & Focus Groups
<b>27</b>	Guided Tour
<b>28</b>	Here And Now
<b>29</b>	Immersion
<b>30</b>	Interview
<b>31</b>	Issue Cards or Trigger Cards
<b>32</b>	It's Like, It's Not Like
<b>33</b>	Mobile diary study
<b>34</b>	Moving Forward with Materials
<b>35</b>	Nine dimensions
<b>36</b>	Observation

<b>Tool name</b>	
<b>37</b>	Observation Matrix
<b>38</b>	Opportunity Mind Map
<b>39</b>	Peers Observing Peers
<b>40</b>	Photo safari
<b>41</b>	Planet Centric Ideation
<b>42</b>	Planet Centric User Journey
<b>43</b>	Product Redesign Workshop
<b>44</b>	Research collage
<b>45</b>	Resource Flow
<b>46</b>	Rings of Connection
<b>47</b>	Service Safari
<b>48</b>	Share Inspiring Stories
<b>49</b>	Skill Share
<b>50</b>	Sticky Decision
<b>51</b>	Test
<b>52</b>	User diaries
<b>53</b>	User Testing
<b>54</b>	Wider Lens





# Empathy

**“Empathy is the capacity to step into other people’s shoes, to understand their lives, and start to solve problems from their perspectives.”  
(IDEO.org, 2015, p. 22)**

Cluster Build Resilience

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Enablers 60

*Empathy* has become a big word in the design world with the introduction of the human-centred design approach. This Competency requires designers to become as close as possible to people to understand their perspectives, pains, gains and values. Learning about people’s difficulties and understanding their need and desires demand Designers to comprehend their environment and how users interact with it. This approach may lead to an understanding of their behaviours and attitude (Dam & Siang, 2018).

In order to build *Empathy*, Designers have to get acquainted with ethnographic approaches popularised by anthropologists. Ethnography provides a possibility to observe participants in a setting that feels natural (Littlejohn & Davis, 2019). Designers must become comfortable being outside their traditional work environment since *Empathy* requires context, which can only be found out of the office.

By putting themselves through the situations lived by the people affected by the problem, designers can immerse themselves and develop a clearer understanding of the problems and its nuances. “[i]n-context immersion means far more than attending class with the people you’re designing for. It means fully understanding and experiencing the circumstances of their lives.” (IDEO.org, 2015, p. 66).

A successful *Empathy* exercise requests one to look at the information presented with open eyes and without biases. Designers must leave, in the first moment, their opinions and beliefs out of the picture. This attitude provides an opportunity for Designers to perceive other people’s ideas more openly and without judgment, even if they may disagree with them.

*Immersion* and *Emotional Journey Map* are two tools that designers can leverage to build *Empathy*. *Immersion* provides a contextual understanding of a given situation. During this activity, Designers should put themselves in the user’s situation for a period that can vary from a couple of hours to weeks or more. While immersing in the user’s environment, Designers must take notes on relevant information they find along their journey that might help them find design opportunities for later action.

The *Emotional Journey Map*, on the other hand, is a tool that helps Designer consolidate and visualise their findings, as well as analyse the emotional pains and gains that a user is exposed to while experiencing a service or product (Oblo & POLI.design, 2019). This tool's emotional component allows designers to keep visual the moments where users are in distress, proving visual cue on how to improve an experience based on an empathic approach.

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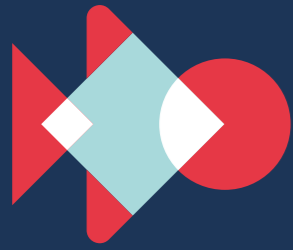
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## Enablers

Tool name		Tool name	
1	Affinity Diagram	20	Empathy in action
2	Assessment Criteria	21	Empathy map
3	Behavioral lenses	22	Ethnography
4	Break up/Love letter	23	Extremes and Mainstreams
5	Card Sort	24	Future workshop
6	Co-Creation Session or Workshop	25	Get Feedback
7	Co-discovery	26	Group Interview & Focus Groups
8	Cognitive map	27	Guided Tour
9	Collage	28	Immersion
10	Conversation Starters	29	Insides Out
11	CSDi Matrix or Knowledge Hunt	30	Interview
12	Cultural Probes / Design Probes	31	Issue Cards or Trigger Cards
13	Dark side	32	Journey Map
14	Day in the life	33	Lightning Demos
15	Desktop Walkthrough	34	Methods banks
16	Download Your Learnings	35	Mobile diary study
17	Draw It	36	Moodboard
18	Ecosystem Map	37	Nine dimensions
19	Emotional Journey Map	38	Observation

<b>Tool name</b>	<b>Tool name</b>
<b>39</b> Observation Matrix	<b>50</b> Role Play
<b>40</b> Peers Observing Peers	<b>51</b> Scenarios
<b>41</b> Persona	<b>52</b> Service Safari
<b>42</b> Photo safari	<b>53</b> Share Inspiring Stories
<b>43</b> Pilot	<b>54</b> Storytelling
<b>44</b> Problem Statement	<b>55</b> Survey & Questionnaire
<b>45</b> Prototype	<b>56</b> Test
<b>46</b> Prototype for empathy	<b>57</b> User diaries
<b>47</b> Qualitative Research	<b>58</b> User Stories
<b>48</b> Research collage	<b>59</b> User Testing
<b>49</b> Resource Flow	<b>60</b> Value Proposition Canvas



# Learn to Learn

**The capacity to build autonomy by actively and continuously crafting new knowledge alone, with others, during and after their formal educational path.**

Cluster Build Resilience

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Enablers 38

The complex problems that designers face today and the growing number of societal changes and crises generate high uncertainty and disruption (UNESCO, 2020). To deal with that, Designers must develop the ability to learn regularly and autonomously. They must *Learn to Learn*.

As the teachers' role shifts from the traditional instructor of knowledge to a facilitator of the learning process, Design students need to be equipped with the motivations and capacities to become lifelong learners. The process of learning goes beyond individual effort. It should also be seen as a collective endeavour (UNESCO, 2020), keeping the community close and central to them.

Designers must understand that their educational path goes beyond their formal classes and need to be ready to keep a continuous learning path. *Learn to learn* means that "learners are active agents rather than passive recipients of prescribed knowledge." (UNESCO, 2020, p. 12). The formal educational institutions must create the foundations for a lifelong learning basis.

*Learn to Learn* requires Designers to think critically about how they are getting their information and how to process them. Equally, it emphasises the importance of digital literacy as the digital revolution has shifted the way the world deals with information from a physical to digital support.

By developing their ability to learn, Designers can contribute to a more resilient society and achieve positive impacts on all territories of sustainability and become active agents of change.

Both quantitative and qualitative research is a crucial skill designer must acquire to gather information during a project. *Secondary research* is a tool which can provide previous knowledge created by different sources. This *Enabler* allows designers to examine and review the information relevant to the project without conducting unnecessary inquiries. It also shows missing information that can be discovered with other research tools such as *Interviews* or *Surveys*.

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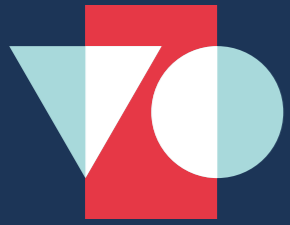
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## Enablers

Tool name		Tool name	
1	Affinity Diagram	20	Learn from Nature
2	Analogous Research	21	Lightning Demos
3	Build a Community	22	Materials Journey Mapping
4	Card Sort	23	Methods banks
5	Collage	24	Monitor and Evaluate (M&E)
6	CSDi Matrix or Knowledge Hunt	25	Observation
7	Current to New Perspectives	26	Peers Observing Peers
8	Day in the life	27	Pilot
9	Download Your Learnings	28	Product Redesign Workshop
10	Ethnography	29	Prototype
11	Expert Interview	30	Qualitative Research
12	Extremes and Mainstreams	31	Quantitative Research
13	Get Feedback	32	Secondary Research
14	Group Interview & Focus Groups	33	Service Safari
15	Immersion	34	Share Inspiring Stories
16	Impact Assessment	35	Skill Share
17	Inspiration: Digital Systems	36	Survey & Questionnaire
18	Interview	37	Test
19	Key Performance Indicator (KPI)	38	User Testing



# Adaptability and Flexibility

**Adaptability and Flexibility are the Designer's ability to adjust their approach and actions as new variables are presented in the project's context.**

Cluster Build Resilience

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Enablers 55

The need to adapt and be flexible in Design has grown as Designers started to broaden their activity beyond the traditional Design fields such as graphic and industrial design. Being more exposed to problems that defy the limits of their skills beyond technical ones, Designers are asked to become agents of change. The findings of Design research provide a rich amount of information that often invalidate initial assumptions. Flexible Designers can overcome such issues by looking at these findings as new opportunities rather than blockers.

The problems faced by the Designers are not only more complex but they are also more fluid. With a more in-depth and, at times, continuous research, new information often rises during a project. The systems Designers deal with are no longer straightforward, local or small. The world connectivity and globalisation create complexity to a level that apparently unrelated issues across the globe may affect local communities in unthinkable ways.

By developing the ability to adapt and be flexible, Designers can change directions if faced with new crucial information. The Competency also equips future professionals to be open-minded and ready to take new approaches when old ones no longer fit the purpose.

Amongst the Enablers that help build this Competence are Analogous Inspiration and the Dark Side. Analogous inspiration is a tool that gives a new perspective to the research by changing its focus to a new context (IDEO.org, 2015). The method can be used in service design when the team visit other services that do not compete with the project they are developing to gather insights that could also work in their favour. In a distinct setting, the Dark Side tool explores the unwanted and negative consequences of the design solution (Amsterdam University of Applied Sciences, n.d.). This tool forces the Designer to look at the design challenge from a new perspective.

Both tools help foster Adaptability and Flexibility by creating an unexpected input in the process and forcing the Designer to discuss and consider new perspectives in their final solution.

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## Enablers

Tool name		Tool name	
1	Affinity Diagram	20	Here And Now
2	Analogous Research	21	Heuristic evaluation
3	App Disruption	22	Hopes and fears
4	Assessment Criteria	23	Insight Matrix
5	Benchmarking	24	Inspiration: Digital Systems
6	Build a Community	25	Iteration
7	Build Partnerships	26	Key Performance Indicator (KPI)
8	Buzz Report	27	Materials Journey Mapping
9	Concept	28	Minimum viable product (MVP)
10	Concept Testing	29	Monitor and Evaluate (M&E)
11	Current to New Perspectives	30	Opportunity Mind Map
12	Dark side	31	People Planet Profit
13	Define the Challenge	32	Pilot
14	Desktop Walkthrough	33	Planet Centric Bootcamp
15	Empathy in action	34	Planet Centric Concept
16	Evaluation Matrix	35	Product Journey Mapping
17	Future workshop	36	Product Redesign Workshop
18	Get Feedback	37	Prototype
19	Goal Check	38	Reality Check

**Tool name**

**39** Regenerative Thinking

**40** Research collage

**41** Resource Assessment

**42** Role Play

**43** Service Flip

**44** Service Safari

**45** Sticky Decision

**46** Storyboard

**47** Test

**Tool name**

**48** Understand Circular Flows

**49** User Stories

**50** User Testing

**51** Value Map

**52** Value Proposition Canvas

**53** ViP (Deconstruct)

**54** ViP (Design)

**55** Wider Lens





# Critical Thinking

**The Designer's ability to analyse and reflect clearly about information and ideas that support their decision-making. Equally important, designers must be able to evaluate their practice and their impact on society critically.**

Cluster Build Resilience

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Enablers 112

During the creative process, Designers are exposed to a significant amount of information that will guide them into a decision-making moment to solve the problem they were challenged with. While making decisions, it is essential that Designers can think critically. First, to understand and translate the information to which they are exposed to. Secondly, to reflect and reason about the solution they will propose and its impact in spheres other than economic.

To become a critical thinker, one must develop an analytical mindset to determine relevant arguments and identify fallacies or misconceptions. However, *Critical Thinking* is not then be applied to the analysis of other arguments only. Designers must reflect critically about their practice, constantly confronting their decisions with society's values as a whole.

By developing the ability to think critically, designers can distance themselves from personal decisions and aim for design outcomes that benefit the planet and the people living on it. Moreover, *Critical Thinking* requires designers to revisit their work to understand its consequences and propose changes or improvement when possible and necessary.

*Critical Thinking* is crucial to address complex problems (Loewe, 2019) as it aims always to question what is given (Dunne & Raby, 2013), rather than just taking things for granted. This is important since Designers, during their process, will collect information from many distinct sources, from interview to desk research. However, not all information is accurate or makes sense in the context of the project. Likewise, not all that is said during a conversation might be accurate or represent the reality of facts. Designers must develop the ability to question, analyse and reframe the information critically.

Two *Enablers* that can promote *Critical Thinking*, especially towards sustainability, are the *People Planet Profit* and the *Business Model Flip*. The former helps designers analyse the impact of their ideas and concepts on people, the planet and the profit, providing a structure may to rate each universe according to established criteria. The latter is a variation of the traditional Business Model Canvas. Here, Designers are invited to think about business models in a planet-centred approach, aiming to impact the planet positively.

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## Enablers

Tool name		Tool name	
<b>1</b>	2x2	<b>20</b>	Day in the life
<b>2</b>	Affinity Diagram	<b>21</b>	Define Goals and Success
<b>3</b>	Analogous Research	<b>22</b>	Define the Challenge
<b>4</b>	App Disruption	<b>23</b>	Define Your Audience
<b>5</b>	Assessment Criteria	<b>24</b>	Desktop Walkthrough
<b>6</b>	Behavioral lenses	<b>25</b>	Determine What to Prototype
<b>7</b>	Benchmarking	<b>26</b>	Dot Voting
<b>8</b>	Bigger Impact	<b>27</b>	Download Your Learnings
<b>9</b>	Build a Community	<b>28</b>	Drivers and hurdles
<b>10</b>	Bundle Ideas or Grow an Idea	<b>29</b>	Ecosystem Map
<b>11</b>	Business Model Canvas	<b>30</b>	Emotional Journey Map
<b>12</b>	Business Model Flip	<b>31</b>	Ethnography
<b>13</b>	Card Sort	<b>32</b>	Evaluation Matrix
<b>14</b>	Circular Buy-In	<b>33</b>	Expert Interview
<b>15</b>	Co-Creation Session or Workshop	<b>34</b>	Expertise Matrix
<b>16</b>	Collage	<b>35</b>	Explore Your Hunch
<b>17</b>	Concept	<b>36</b>	Extremes and Mainstreams
<b>18</b>	CSDi Matrix or Knowledge Hunt	<b>37</b>	Find Circular Opportunities
<b>19</b>	Dark side	<b>38</b>	Fishbone diagram

<b>Tool name</b>	
<b>39</b>	Goal Check
<b>40</b>	Group Interview & Focus Groups
<b>41</b>	Gut Check
<b>42</b>	Here And Now
<b>43</b>	Heuristic evaluation
<b>44</b>	Hopes and fears
<b>45</b>	How Might We
<b>46</b>	Hypothesis
<b>47</b>	Identify Sources of Inspiration
<b>48</b>	Immersion
<b>49</b>	Impact Assessment
<b>50</b>	Influence/Impact Matrix
<b>51</b>	Influencing forces
<b>52</b>	Insides Out
<b>53</b>	Insight Matrix
<b>54</b>	Interview
<b>55</b>	Iteration
<b>56</b>	Journey Map
<b>57</b>	Learn from Nature
<b>58</b>	Lightning Demos

<b>Tool name</b>	
<b>59</b>	Materials Journey Mapping
<b>60</b>	Minimum viable product (MVP)
<b>61</b>	Monitor and Evaluate (M&E)
<b>62</b>	MoSCoW
<b>63</b>	Moving Forward with Materials
<b>64</b>	Observation
<b>65</b>	Observation Matrix
<b>66</b>	Opportunity Mind Map
<b>67</b>	People Planet Profit
<b>68</b>	Persona
<b>69</b>	Photo safari
<b>70</b>	Pilot
<b>71</b>	Planet Centric Bootcamp
<b>72</b>	Planet Centric Concept
<b>73</b>	Planet Centric Ideation
<b>74</b>	Planet Centric User Journey
<b>75</b>	Problem Statement
<b>76</b>	Product Journey Mapping
<b>77</b>	Product Redesign Workshop
<b>78</b>	Prototype

<b>Tool name</b>	
<b>79</b>	Prototype for empathy
<b>80</b>	Quantitative Research
<b>81</b>	Reality Check
<b>82</b>	Recruite Participants
<b>83</b>	Regenerative Thinking
<b>84</b>	Relational Map
<b>85</b>	Research collage
<b>86</b>	Research Plan
<b>87</b>	Resource Assessment
<b>88</b>	Rings of Connection
<b>89</b>	Ripple Effect
<b>90</b>	Role Play
<b>91</b>	Rumble or all-in-one
<b>92</b>	Scenarios
<b>93</b>	Secondary Research
<b>94</b>	Service Flip
<b>95</b>	Share Inspiring Stories
<b>96</b>	Smart Material Choices
<b>97</b>	Stakeholder Map
<b>98</b>	Storyboard

<b>Tool name</b>	
<b>99</b>	Sustainability Storytelling
<b>100</b>	SWOT Analysis
<b>101</b>	Systemic Touchpoints
<b>102</b>	Tomorrow's Narratives
<b>103</b>	Trend Observation
<b>104</b>	Understand Circular Flows
<b>105</b>	User diaries
<b>106</b>	Value Map
<b>107</b>	Value Proposition Canvas
<b>108</b>	Venn Diagram
<b>109</b>	ViP (Deconstruct)
<b>110</b>	Ways to Grow Framework
<b>111</b>	Wider Lens
<b>112</b>	WWWWWH

# Propose Solutions



Competencies that foster building creative and innovative thinking to drive solutions that address sustainability issues. It also enables future designers to strategically communicate the value of such proposals to businesses and society.

Propose Solutions

Complex Problem-Solving

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Creativity

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Strategic Thinking

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Communication



# Complex Problem-Solving

**The Designer's ability to understand and address problems in a non-linear approach, identify hidden connections and propose solutions that impact society and the world at many levels.**

Cluster Propose Solutions

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Enablers 82

The growing complexity of the problems has become evident in many areas, and Design is no exception. Often also defined as wicked-problems, they are ill formulated, where the information is not easily accessible (Fuad-Luke, 2009). Design itself is a problem-solving activity that now deals with complexity daily. Meaning that the process of solving a problem of such nature, unlike a traditional design approach, is a non-linear one, swinging back and forth into an iterative process as the project follows along.

In order to tackle complex challenges, Designers must understand the consequences of their actions and take responsibility for the solutions they propose. For that, designers must learn how to understand and navigate complexity to visualise the often-hidden connections between parts of a system.

Solving complex problems require Designers to dive deep into research to find opportunities and insights that might lead to positive outcomes that are somehow aligned with societal and environmental needs. Designers can no longer rely only on a solitary process done entirely inside their work environment. Instead, they need to turn to the outside world to find the inspiration to guide their creative process.

*Bigger Impact* is a tool that helps designers start to understand complexity levels in a given project. The tool encourages discussing how the world's changes relate to the problems they are trying to solve, evolving from a personal micro to a broader and macro-level (Vincit, 2019).

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## Enablers

Tool name	Tool name
1 2x2	18 Define Your Audience
2 App Disruption	19 Download Your Learnings
3 Assessment Criteria	20 Draw It
4 Bigger Impact	21 Ecosystem Map
5 Boundary shifting	22 Empathy map
6 Brainstorm	23 Ethnography
7 Build a Community	24 Evaluation Matrix
8 Bundle Ideas or Grow an Idea	25 Expert Interview
9 Capabilities quicksheet	26 Extremes and Mainstreams
10 Circular Buy-In	27 Find Circular Opportunities
11 Co-Creation Session or Workshop	28 Find Themes
12 Collage	29 Future workshop
13 Concept	30 Get Feedback
14 Concept Testing	31 Group Interview & Focus Groups
15 CSDi Matrix or Knowledge Hunt	32 Here And Now
16 Dark side	33 How Might We
17 Define the Challenge	34 Hypothesis

**Tool name**

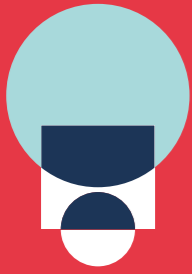
<b>35</b>	Identify Sources of Inspiration
<b>36</b>	Immersion
<b>37</b>	Influencing forces
<b>38</b>	Insides Out
<b>39</b>	Insight Matrix
<b>40</b>	Insight Statements
<b>41</b>	Interview
<b>42</b>	Journey Map
<b>43</b>	Mind map
<b>44</b>	MoSCoW
<b>45</b>	Moving Forward with Materials
<b>46</b>	Observation
<b>47</b>	Observation Matrix
<b>48</b>	Open-Source Scaling
<b>49</b>	Peers Observing Peers
<b>50</b>	People Planet Profit
<b>51</b>	Pilot
<b>52</b>	Planet Centric Bootcamp
<b>53</b>	Planet Centric Concept
<b>54</b>	Planet Centric Ideation

**Tool name**

<b>55</b>	Planet Centric User Journey
<b>56</b>	Problem Statement
<b>57</b>	Problem tree
<b>58</b>	Product Redesign Workshop
<b>59</b>	Prototype
<b>60</b>	Prototype for empathy
<b>61</b>	Qualitative Research
<b>62</b>	Quantitative Research
<b>63</b>	Reality Check
<b>64</b>	Regenerative Thinking
<b>65</b>	Relational Map
<b>66</b>	Research collage
<b>67</b>	Rings of Connection
<b>68</b>	Role Play
<b>69</b>	Secondary Research
<b>70</b>	Service Flip
<b>71</b>	Skill Share
<b>72</b>	Smart Material Choices
<b>73</b>	Stakeholder Map
<b>74</b>	Storyboard

**Tool name**

<b>75</b>	Survey & Questionnaire
<b>76</b>	Systemic Touchpoints
<b>77</b>	Top Five
<b>78</b>	Trend Observation
<b>79</b>	Understand Circular Flows
<b>80</b>	User diaries
<b>81</b>	Wider Lens
<b>82</b>	WWWWWH



# Creativity

**Original and Iterative thinking that leads to innovative solutions which provides value to the social, economic and environmental contexts.**

Cluster Propose Solutions

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Enablers 57

*Creativity* has always been a fundamental Competency for Designers. From a general perspective, creativity can give birth to innovative solutions to solve a problem (Leopold, Ratcheva, & Zahidi, 2016; Villalba, 2008). However, in recent years and given the present societal moment, designers have been challenged not only to be creative and innovative but also to do it in a way that no longer hurts the environment or society.

To be creative relies on four key characteristics: Imaginations, purpose, originality and adequacy (Villalba, 2008). Designers depend on an iterative process of Divergent and Convergent thinking to achieve creative outcomes, continually testing their ideas in the real world. Every creative professional must be comfortable going through this process continuously, seeking new and fresh ideas.

Risk-taking is another critical skill to enable *Creativity* (Lubart & Thornhill-Miller, 2017). Without taking risks and being open to experiment and explore concepts, the chances of innovation are low. Designers must be comfortable being uncomfortable to explore unconventional paths that might lead them to come up with solutions to unprecedented problems.

Nature can provide a great deal of inspiration to the Designer's creativity. *Learn from nature* (IDEO & Ellen MacArthur Foundation, n.d.) is a tool that looks at how biological systems can inspire problem-solving to achieve a more circular and holistic approach. Although biomimicry is not new to Design, it has become even more relevant in the current state of environmental crisis witnessed by the world today.

One of the most popular tools Designers use in the creative process is *Brainstorming Sessions*. This classic method empowers generating a significant amount of ideas, deferring judgment, and encouraging wild ideas (IDEO.org, 2015), leaving the discussion of adequacy to a second moment. *Brainstormings* are collaborative that can be done with clients and users' participation to enrich the discussion and pertinence of the solution.



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## Enablers

Tool name	Tool name
<b>1</b> Analogous Research	<b>20</b> Empathy in action
<b>2</b> App Disruption	<b>21</b> Extremes and Mainstreams
<b>3</b> Backcasting	<b>22</b> Fake brand names
<b>4</b> Boundary shifting	<b>23</b> Get Feedback
<b>5</b> Brainstorm	<b>24</b> Get Visual
<b>6</b> Brand Promise	<b>25</b> How Might We
<b>7</b> Build a Team	<b>26</b> Hypothesis
<b>8</b> Bundle Ideas or Grow an Idea	<b>27</b> Idea Remix
<b>9</b> Card Sort	<b>28</b> Immersion
<b>10</b> Circular Brainstorming	<b>29</b> Influencing forces
<b>11</b> Co-Creation Session or Workshop	<b>30</b> Insight Statements
<b>12</b> Collage	<b>31</b> Issue Cards or Trigger Cards
<b>13</b> Concept	<b>32</b> It's Like, It's Not Like
<b>14</b> Concept Analogies	<b>33</b> Learn from Nature
<b>15</b> Conversation Starters	<b>34</b> Lotus blossom
<b>16</b> Crazy 8s	<b>35</b> Mash-up
<b>17</b> Desktop Walkthrough	<b>36</b> Mash-Ups
<b>18</b> Draw It	<b>37</b> Mind map
<b>19</b> Drivers and hurdles	<b>38</b> Minimum viable product (MVP)

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**Tool name**

- 
- 39** Moodboard

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  - 40** Opportunity Mind Map

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  - 41** Peers Observing Peers

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  - 42** Pitch

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  - 43** Planet Centric Concept

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  - 44** Planet Centric Ideation

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  - 45** Product Redesign Workshop

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  - 46** Prototype

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  - 47** Prototype for empathy

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  - 48** Ripple Effect

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**Tool name**

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- 49** Scenarios

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  - 50** Service Flip

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  - 51** Service Image

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  - 52** Sketch

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  - 53** Storyboard

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  - 54** Storytelling

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  - 55** Sustainability Storytelling

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  - 56** Top Five

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  - 57** User Testing

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# Strategic Thinking

**The ability to analyse contextual information and make decisions bases on the desired outcome while balancing the economic, social and environmental perspectives and impacts.**

Cluster Propose Solutions

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Enablers 132

Traditionally, Design is a popular strategic tool for business. Companies have learnt how Design can bring advantages to their business models, with many big companies (e.g. Fortune 500 ones) have entirely dedicated design sectors. Some of them even are seen and called Design Driven companies. In the past decades, the popularisation of Design Thinking undoubtedly contributed to the optimistic view of Design in the business sector.

Designers must navigate the formalities of a project and understand how to think strategically, as Design has become a significant part of businesses. They need to be aware of the company's goals and target to produce the desired outcome in their process. Designers must be accustomed to defining goals and measurements for success.

Throughout the creative process, Designers are required to make decisions based on the data they are presented. Those decisions need to be strategic in order to produce the desired results. However, *Strategic Thinking* is not to be seen only as a Competency to produce more business or sales. It is also crucial for designers to tackle social and environmental issues. They must find ways to best achieve business goals without generating social distress and environmental depletion. As a novelty creator, designers must act as a judge of value to help drive business to a more sustainable approach, becoming real agents of change.

*Design Principles* (IDEO.org, 2015; Oblo & POLL.design, 2019) is a strategic tool that allows designers and organisations to help deliver a consistent experience across channels. *Design Principles* describe the essential elements of a solution providing integrity and consistency (IDEO.org, 2015). A second *Enabler* that fosters *Strategic Thinking* is *Drivers and Hurdles*. Through the exercise, the goal is to identify where to focus the energies for more effective action (Design Council, 2015), especially at projects with limited resources.

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## Enablers

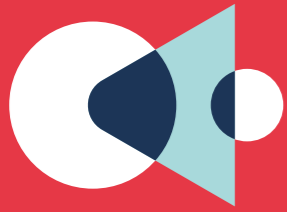
Tool name		Tool name	
1	2x2	20	Circular Buy-In
2	Action Plan	21	Co-Creation Session or Workshop
3	Affinity Diagram	22	Co-discovery
4	Align Your Organisation	23	Concept
5	Analogous Research	24	Concept Analogies
6	App Disruption	25	Concept Testing
7	Assessment Criteria	26	Cultural Probes / Design Probes
8	Backcasting	27	Current to New Perspectives
9	Benchmarking	28	Day in the life
10	Brand Promise	29	Define Goals and Success
11	Break up/Love letter	30	Define the Challenge
12	Build a Community	31	Define Your Audience
13	Build a Team	32	Design Principles
14	Build Partnerships	33	Desktop Walkthrough
15	Bundle Ideas or Grow an Idea	34	Determine What to Prototype
16	Business Model Canvas	35	Divide & Conquer
17	Business Model Flip	36	Dot Voting
18	Buzz Report	37	Download Your Learnings
19	Capabilities quicksheet	38	Drivers and hurdles

<b>Tool name</b>	
<b>39</b>	Ecosystem Map
<b>40</b>	Emotional Journey Map
<b>41</b>	Empathy map
<b>42</b>	Ethnography
<b>43</b>	Evaluation Matrix
<b>44</b>	Expert Interview
<b>45</b>	Expertise Matrix
<b>46</b>	Fake brand names
<b>47</b>	Find Circular Opportunities
<b>48</b>	Find Themes
<b>49</b>	Fishbone diagram
<b>50</b>	Funding Strategy
<b>51</b>	Future workshop
<b>52</b>	Get Feedback
<b>53</b>	Goal Check
<b>54</b>	Group Interview & Focus Groups
<b>55</b>	Here And Now
<b>56</b>	Hopes and fears
<b>57</b>	How Might We
<b>58</b>	Hypothesis
<b>59</b>	Identify Sources of Inspiration
<b>60</b>	Immersion
<b>61</b>	Impact Assessment
<b>62</b>	Influence/Impact Matrix

<b>Tool name</b>	
<b>63</b>	Insight Matrix
<b>64</b>	Insight Statements
<b>65</b>	Inspiration: Digital Systems
<b>66</b>	Interview
<b>67</b>	It's Like, It's Not Like
<b>68</b>	Iteration
<b>69</b>	Journey Map
<b>70</b>	Key Performance Indicator (KPI)
<b>71</b>	Lightning Demos
<b>72</b>	Methods banks
<b>73</b>	Minimum viable product (MVP)
<b>74</b>	Monitor and Evaluate (M&E)
<b>75</b>	Moodboard
<b>76</b>	MoSCoW
<b>77</b>	Moving Forward with Materials
<b>78</b>	Observation
<b>79</b>	Observation Matrix
<b>80</b>	Open-Source Scaling
<b>81</b>	Opportunity Mind Map
<b>82</b>	People Planet Profit
<b>83</b>	Persona
<b>84</b>	Pilot
<b>85</b>	Pitch
<b>86</b>	Planet Centric Bootcamp

<b>Tool name</b>	
<b>87</b>	Planet Centric User Journey
<b>88</b>	Problem Statement
<b>89</b>	Problem tree
<b>90</b>	Product Journey Mapping
<b>91</b>	Product Redesign Workshop
<b>92</b>	Project Plan
<b>93</b>	Radical/Realist Matrix
<b>94</b>	Reality Check
<b>95</b>	Recruite Participants
<b>96</b>	Regenerative Thinking
<b>97</b>	Relational Map
<b>98</b>	Research Plan
<b>99</b>	Resource Assessment
<b>100</b>	Rings of Connection
<b>101</b>	Ripple Effect
<b>102</b>	Roadmap
<b>103</b>	Rumble or all-in-one
<b>104</b>	Scenarios
<b>105</b>	Secondary Research
<b>106</b>	Service Blueprint
<b>107</b>	Service Flip
<b>108</b>	Service Safari
<b>109</b>	Service Specifications
<b>110</b>	Skill Share

<b>Tool name</b>	
<b>111</b>	Staff Your Project
<b>112</b>	Stakeholder Map
<b>113</b>	Sticky Decision
<b>114</b>	Storyboard
<b>115</b>	Sustainability Storytelling
<b>116</b>	Sustainable Revenue
<b>117</b>	SWOT Analysis
<b>118</b>	System Map
<b>119</b>	Tomorrow's Narratives
<b>120</b>	Top Five
<b>121</b>	Trend Observation
<b>122</b>	Understand Circular Flows
<b>123</b>	User diaries
<b>124</b>	User Stories
<b>125</b>	User Testing
<b>126</b>	Value Map
<b>127</b>	Value Proposition Canvas
<b>128</b>	Venn Diagram
<b>129</b>	ViP (Deconstruct)
<b>130</b>	Vision Statement
<b>131</b>	Ways to Grow Framework
<b>132</b>	Wider Lens



# Communication

**The Designers' capability to interact with peers and other stakeholders during the design process, present and pitch design ideas, share findings, and evidence the values of a sustainable approach to Design to the overall community.**

Cluster    Propose  
Solutions

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Enablers    27

In Design, *Communication* has become a fundamental competency as the field is evolving from an in-house and reflective practice into a more collaborative approach. The introduction of people from different backgrounds and experiences in the process makes Communication critical for the process to run without significant friction (McMahon & Bhamra, 2016) perspectives, cultures, skills and tools. Unless, however the process of collaboration is explored in detail, the opportunity for reflection, learning and improvement is lost. This paper proposes that by introducing and analysing collaboration within third level design education, the capacity for responsible design practice can be developed, leading to a transformative shift in how designers are taught as students and subsequently practice as professionals. Over two multidisciplinary projects devised and undertaken by design students from the University of Limerick (Ireland. Designers must communicate with different languages and understand behaviours to gather the information needed for the process.

During the creative process, Designers must be capable of discussing ideas amongst peers and stakeholders. When acting as facilitator, designers must clearly inform participants about the goals of activities and lead them through the different required stages.

Designers are frequently in a position of giving presentations and pitching ideas to key stakeholders, building compelling and meaningful arguments (Brown, 2009) for it to be heard and adopted. In a scenario where the market discourse must give space to societal and environmental issues, the ability to properly communicate values is crucial to our systems' sustainability.

Regarding their role of active agents change, Designers must be able to communicate the values of a more just and sustainable future to clients, policymakers and society in general. For Designers to lead the path to change, it is crucial to be prepared to act as leaders rather than followers (Russ, 2019). By embracing such a position, Designers must apply principles that pursue social change and sustainability and make sure to elucidate the benefits of doing so through their communication agenda.

Finally, designers must aim to share – in an open-source format – their findings, successes, and fails to the design community and society. Only

by adopting this sharing Approach, Designers can stop serving the interest of a few and start to serve the interest of the public and the world.

*Sustainability Storytelling* and *Open-Source Scaling* are some of the *Enablers* identified to help build the *Communication Competency*. Both tools are featured at the Planet Centric Design Toolkit (Vincit, 2019). The *Sustainability Storytelling* tool guides designers through a canvas to build a transparent sustainability message across their audience. On the other hand, the *Open-Source Scaling* provides a blueprint to help Designers open their findings to the community, therefore potentiating the impact as others can build on the top of their solutions and discoveries.

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## Enablers

Tool name		Tool name	
<b>1</b>	Align Your Organisation	<b>15</b>	Product Redesign Workshop
<b>2</b>	Brand Promise	<b>16</b>	Role Play
<b>3</b>	Build a Community	<b>17</b>	Service Image
<b>4</b>	Build Partnerships	<b>18</b>	Service Specifications
<b>5</b>	Circular Buy-In	<b>19</b>	Storyboard
<b>6</b>	Concept	<b>20</b>	Storytelling
<b>7</b>	Conversation Starters	<b>21</b>	Survey & Questionnaire
<b>8</b>	Design Principles	<b>22</b>	Sustainability Storytelling
<b>9</b>	Funding Strategy	<b>23</b>	Tomorrow's Narratives
<b>10</b>	Group Interview & Focus Groups	<b>24</b>	Value Map
<b>11</b>	Interview	<b>25</b>	Value Proposition Canvas
<b>12</b>	It's Like, It's Not Like	<b>26</b>	Vision Statement
<b>13</b>	Methods banks	<b>27</b>	Ways to Grow Framework
<b>14</b>	Pitch		

# Understand Consequences



Competencies that invites the Designer to understand complexity and how the outcomes of their actions can affect the world's sustainability. By providing context to the design process, designers can develop a holistic and systemic approach.

Understand  
Consequences

Context Awareness

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Environmental Awareness

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Ethics

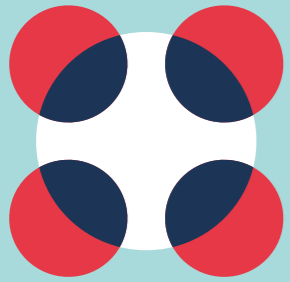
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System Thinking

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Envision Design Outcomes





# Context Awareness

**The Designer's ability to investigate how context (political, cultural, social, economic and historical) may affect the solution to a problem and Design accordingly to provide the best response possible.**

Cluster Understand Consequences

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Enablers 50

Design does not happen in a vacuum. Therefore, it should not be practice without considering many variables involved. Designers rely on the context in which the problem is surrounded. This holistic understanding is crucial to the success of the solution proposed. Context encapsulates many spheres that may impact the Designer's work, such as political, historical, social, economic and cultural ones.

Designers cannot design too far from the problem. However, they must be able to distance themselves from their biases and prejudices. Involving local communities in the design process is a meaningful way to understand the context and address it adequately. "It is not just the eye enabling one to look at a context, but also the context enabling the eye to see things in a different way." (Baerten, 2013, p. 44)

Designers must understand how the local community interacts with the problem they are trying to solve. They should ask questions that will allow themselves to understand how a given culture deals with a particular context and how history or even the present moment may affect the project's potential success.

In recent years, Designers have become more engaged with social and political agendas, at times acting as activists. This attitude is expected from all designers aware of the context their creation will live on and the potential transformation it has in the world. Without the awareness that Design itself is political, designers fail to understand that they usually serve a particular ideology (Fry, 2009).

*Interviews* are an often-used tool to understand the context from the viewpoint of the people affected by the problem. This method provides a connection to people's hopes, desires and aspirations as Designers can hear from the user's own words to describe their point of view (IDEO.org, 2015). More context can be observed if the interviews are conducted in a person's space rather than in a laboratory. Besides interviewing users individually, Designer can also conduct *Group Interviews* and *Expert Interviews* to broaden their contextual understanding.

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## Enablers

Tool name		Tool name	
<b>1</b>	Affinity Diagram	<b>20</b>	Extremes and Mainstreams
<b>2</b>	App Disruption	<b>21</b>	Group Interview & Focus Groups
<b>3</b>	Behavioral lenses	<b>22</b>	Guided Tour
<b>4</b>	Benchmarking	<b>23</b>	Here And Now
<b>5</b>	Bigger Impact	<b>24</b>	Hopes and fears
<b>6</b>	Card Sort	<b>25</b>	Immersion
<b>7</b>	Co-Creation Session or Workshop	<b>26</b>	Interview
<b>8</b>	Collage	<b>27</b>	Issue Cards or Trigger Cards
<b>9</b>	Cultural Probes / Design Probes	<b>28</b>	Key Performance Indicator (KPI)
<b>10</b>	Day in the life	<b>29</b>	Mobile diary study
<b>11</b>	Define the Challenge	<b>30</b>	Observation
<b>12</b>	Define Your Audience	<b>31</b>	Observation Matrix
<b>13</b>	Download Your Learnings	<b>32</b>	Peers Observing Peers
<b>14</b>	Drivers and hurdles	<b>33</b>	Persona
<b>15</b>	Ecosystem Map	<b>34</b>	Photo safari
<b>16</b>	Emotional Journey Map	<b>35</b>	Pilot
<b>17</b>	Empathy map	<b>36</b>	Planet Centric Bootcamp
<b>18</b>	Ethnography	<b>37</b>	Prototype for empathy
<b>19</b>	Expert Interview	<b>38</b>	Qualitative Research

**Tool name**

**39** Quantitative Research

**40** Reality Check

**41** Research collage

**42** Resource Flow

**43** Secondary Research

**44** Service Safari

**Tool name**

**45** Share Inspiring Stories

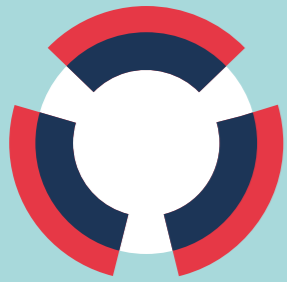
**46** Survey & Questionnaire

**47** Trend Observation

**48** User diaries

**49** ViP (Design)

**50** Wider Lens



# Environmental Awareness

**The ability to understand the relationship of their work in the environment and create a more sustainable practice.**

Cluster Understand Consequences

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Enablers 26

*Environmental Awareness* is the Designer's capacity to think about the relationship of their work with the impact it may cause on the environment. Environmental Awareness requires designers to have a holistic and systemic approach to the life cycle of products and the impact of services in a broader scenario. Designers must be aware of the relationship between things (Russ, 2019).

To become environmentally conscious, Designers must measure the success of a project-based not only on economic thrive but also on the impact (positive or negative) that it may cause in the world. That attitude highlights how Designers are part of a larger system, besides the economic one (McDonough & Braungart, 2002).

The development of any design project impacts the planet, but a much more significant impact happens due to the process's outcomes. Looking at the environment perspective can no longer be subject to specialisation. Instead, it must be a core pillar in design projects. A mindset that must be nurtured during school time and that should be part of creating and evaluating projects independent of its magnitude.

Designers must develop the ability to think about circularity and leave the linear way of designing behind. Circularity means understanding how the end of a cycle can feed the beginning of a new one, how they relate and how that affects the Designer's decision towards materials, energy sources and fabrication methods, to name a few.

Awareness is the first step for Designers to become agents of change. They must seek an approach capable of creating more intelligent and resilient systems that feed one's capacity to understand the consequences of their practice and work towards it.

The *Planet Centric Bootcamp* is a collaborative tool that can be used at the beginning of a design project to gather "everyone to understand the causes and effects of climate change" (Vincit, 2019, p. 5). The tool aims to align the participants on the mindset of how being design-centric is vital and necessary.

While standard to the natural systems, circularity might be still challenging for designers to work with. *Understand circular flows* is a tool featured

at the Circular Design Guide (IDEO & Ellen MacArthur Foundation, n.d.) that helps designers and stakeholders understand different approaches to make a product, service or business more circular.

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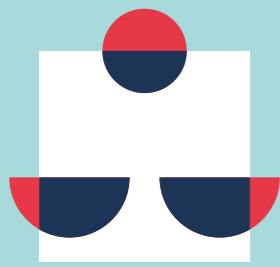
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## Enablers

Tool name		Tool name	
<b>1</b>	App Disruption	<b>14</b>	Planet Centric Bootcamp
<b>2</b>	Bigger Impact	<b>15</b>	Planet Centric Concept
<b>3</b>	Business Model Flip	<b>16</b>	Planet Centric Ideation
<b>4</b>	Circular Brainstorming	<b>17</b>	Planet Centric User Journey
<b>5</b>	Circular Buy-In	<b>18</b>	Product Journey Mapping
<b>6</b>	Find Circular Opportunities	<b>19</b>	Product Redesign Workshop
<b>7</b>	Here And Now	<b>20</b>	Regenerative Thinking
<b>8</b>	Influence/Impact Matrix	<b>21</b>	Service Flip
<b>9</b>	Insides Out	<b>22</b>	Smart Material Choices
<b>10</b>	Learn from Nature	<b>23</b>	Sustainability Storytelling
<b>11</b>	Materials Journey Mapping	<b>24</b>	Systemic Touchpoints
<b>12</b>	Moving Forward with Materials	<b>25</b>	Understand Circular Flows
<b>13</b>	People Planet Profit	<b>26</b>	Wider Lens



# Ethics

**The moral obligation to respect every human and living system while serving society as a whole and preventing harm to be done due to their actions.**

Cluster Understand  
Consequences

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Enablers 29

Design established itself as a profession due to the thrive of capitalism and consumerism. Both represent a known threat to the balance of the world. Amongst the consequences are the environmental depletion and social inequality. Often seen as a crucial tool to fuel sales, Designers are now confronted with the need to balance their practices with stakeholders' expectations and the planet's sustainability.

*Ethics* provides a moral compass to designers to work under and guide their decisions to prevent harm. Designers must discuss how they should serve society and act not according to market needs but to societal ones.

Professional *Ethics* is the foundation of all profession. *Ethics in Design* say that what should be weighted are the processes' outcomes, "not the underlying rules or motivations for the design." (Russ, 2019, p. 50). In sustainability, designers face challenges that go beyond traditional approaches as they become responsible for the planet's future (Russ, 2019).

The foundation of an ethical Design practice relies on critical and systemic thinking and awareness of context and impact of one's actions, always respecting every human and living being. It should always be inclusive and promote equality for all. The starting point of the social and moral judgment to Designers happens at the moment they decide if the project, whether the project merits his attention (Papanek, 2019).

The *Extremes and Mainstreams* (IDEO.org, 2015) encourages Designers to propose solutions that could work for all people. To achieve this result, they must aim for a broad audience that fits extremes users and the mainstream. Besides the benefit of understanding marginalised people's needs, talking to people at the extreme of a problem can provide valuable insights, design opportunities and foster creativity (IDEO.org, 2015), while it contributes to more ethical practice.

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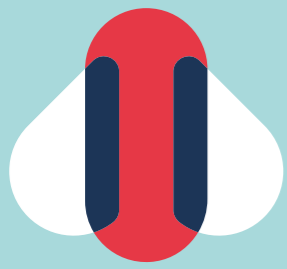
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## Enablers

Tool name		Tool name	
<b>1</b>	Bigger Impact	<b>16</b>	Observation
<b>2</b>	Brand Promise	<b>17</b>	Open-Source Scaling
<b>3</b>	Business Model Flip	<b>18</b>	Planet Centric Bootcamp
<b>4</b>	Card Sort	<b>19</b>	Planet Centric Concept
<b>5</b>	Dark side	<b>20</b>	Planet Centric User Journey
<b>6</b>	Extremes and Mainstreams	<b>21</b>	Product Redesign Workshop
<b>7</b>	Find Circular Opportunities	<b>22</b>	Prototype for empathy
<b>8</b>	Future workshop	<b>23</b>	Quantitative Research
<b>9</b>	Group Interview & Focus Groups	<b>24</b>	Secondary Research
<b>10</b>	Here And Now	<b>25</b>	Survey & Questionnaire
<b>11</b>	Hopes and fears	<b>26</b>	Sustainability Storytelling
<b>12</b>	Immersion	<b>27</b>	Systemic Touchpoints
<b>13</b>	Influence/Impact Matrix	<b>28</b>	Understand Circular Flows
<b>14</b>	Insides Out	<b>29</b>	Wider Lens
<b>15</b>	Interview		



# System Thinking

**The capacity to analyse and identify, from a holistic perspective, the parts and forces that constitute a system and its dynamics.**

Cluster Understand Consequences

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Enablers 37

Complex problem-solving requires designers to develop a holistic perspective, broadening their understanding of the problem and identifying connections and relationships amongst the parts involved, in other words, thinking systemically.

In order to address the sustainability issues, Designers must consider the systems and context in which the problem is rooted. A systemic view demands seeing problems from a larger perspective before developing the solutions. Designers must understand that “every solution lives within several ecosystems relating to environmental, sociocultural, and financial systems” (Shedroff, 2009, p. 357).

*System Thinking* provides an opportunity to reframe traditional models from a new perspective (Shedroff, 2009). Successfully approaching system thinking may include co-design and Collaboration, where many stakeholders contribute to the solution’s pluralism (Jones, 2017; Manzini & Coad, 2015). A diverse discussion can enrich the possibilities of sustainable solutions and enable easier adoption.

Designers must integrate *System Thinking* into human-centred Design (Jones, 2017) to understand the human factor and its relationship with other systems (e.g. nature). Finally, they must be familiarised with the concept of bottom-up and top-down approaches as co-existing parts of a system, not separated and excluding elements (Manzini & Coad, 2015).

*Systemic Touchpoints* is an *Enabler* that confronts a concept with the impacts and effects it might have on a bigger scale in society. The tool proposes the participation of experts from different fields to analyse and discuss the role and impacts of a product or service (Vincit, 2019). Another tool that to forge *System Thinking* is *Influencing Forces*, a divergent thinking technique that uncovers “areas for research by exploring the different forces that might influence it” (Kershaw, Dahl, & Roberts, 2016, p. 28).

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## Enablers

Tool name		Tool name	
<b>1</b>	Build a Community	<b>20</b>	Mind map
<b>2</b>	Build Partnerships	<b>21</b>	Observation
<b>3</b>	Business Model Canvas	<b>22</b>	People Planet Profit
<b>4</b>	Business Model Flip	<b>23</b>	Pilot
<b>5</b>	Capabilities quicksheet	<b>24</b>	Planet Centric Bootcamp
<b>6</b>	Define the Challenge	<b>25</b>	Planet Centric Ideation
<b>7</b>	Download Your Learnings	<b>26</b>	Product Redesign Workshop
<b>8</b>	Ecosystem Map	<b>27</b>	Regenerative Thinking
<b>9</b>	Ethnography	<b>28</b>	Rings of Connection
<b>10</b>	Expert Interview	<b>29</b>	Ripple Effect
<b>11</b>	Group Interview & Focus Groups	<b>30</b>	Roadmap
<b>12</b>	Here And Now	<b>31</b>	Service Blueprint
<b>13</b>	Identify Sources of Inspiration	<b>32</b>	Smart Material Choices
<b>14</b>	Immersion	<b>33</b>	Stakeholder Map
<b>15</b>	Impact Assessment	<b>34</b>	System Map
<b>16</b>	Influencing forces	<b>35</b>	Systemic Touchpoints
<b>17</b>	Journey Map	<b>36</b>	Understand Circular Flows
<b>18</b>	Learn from Nature	<b>37</b>	Wider Lens
<b>19</b>	Materials Journey Mapping		



# Envision Design Outcomes

**The Designer's capacity to critically understand the impact and consequences of their actions by combining speculative future scenarios and past experiences.**

Cluster Understand  
Consequences

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Enablers 37

Designers often create novelty that may disrupt a given *status quo*, changing habits, behaviours and attitudes. Some of those changes may be small, while others can have a worldwide impact, changing dynamics and creating unprecedented distress. However, the discussion around accountability still falls short in the design sector and even shorter in design schools.

Research is a crucial skill to help develop the type of *Critical Thinking* necessary to make connections between actions and consequences. “[N]ot just information retrieval at the beginning of the design process but ongoing feedback and evaluation of the consequences of design action, including across the lifespan of messages, products, environments, and services” (AIGA, 2017).

To *Envision Design Outcomes* is a key competence that Designers must practice. While foreseeing future outcomes might not be a perfect science, designers must dedicate time to think about the possible consequences of their action. They must be able to speculate future scenarios to contribute to a better and more just future. Besides the speculative practice, Designers need to step forward and accept the responsibility and accountability of their actions and ideas.

The *Ripple Effect* featured on The Collective Action Toolkit (Frog Design, n.d.) is an *Enabler* which invites the Design team to imagine the desired impact to improve people's lives. The activity starts from an individual perspective and grows in scale, questioning how it could change or effect a nation or the world.

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## Enablers

Tool name		Tool name	
<b>1</b>	App Disruption	<b>20</b>	People Planet Profit
<b>2</b>	Backcasting	<b>21</b>	Pilot
<b>3</b>	Behavioral lenses	<b>22</b>	Planet Centric Bootcamp
<b>4</b>	Business Model Flip	<b>23</b>	Planet Centric Concept
<b>5</b>	Dark side	<b>24</b>	Planet Centric Ideation
<b>6</b>	Expert Interview	<b>25</b>	Planet Centric User Journey
<b>7</b>	Extremes and Mainstreams	<b>26</b>	Problem Statement
<b>8</b>	Fishbone diagram	<b>27</b>	Product Journey Mapping
<b>9</b>	Future workshop	<b>28</b>	Product Redesign Workshop
<b>10</b>	Group Interview & Focus Groups	<b>29</b>	Regenerative Thinking
<b>11</b>	Here And Now	<b>30</b>	Ripple Effect
<b>12</b>	Hopes and fears	<b>31</b>	Secondary Research
<b>13</b>	How Might We	<b>32</b>	Smart Material Choices
<b>14</b>	Hypothesis	<b>33</b>	Systemic Touchpoints
<b>15</b>	Influence/Impact Matrix	<b>34</b>	Understand Circular Flows
<b>16</b>	Key Performance Indicator (KPI)	<b>35</b>	ViP (Deconstruct)
<b>17</b>	Learn from Nature	<b>36</b>	ViP (Design)
<b>18</b>	Materials Journey Mapping	<b>37</b>	Wider Lens
<b>19</b>	Moving Forward with Materials		

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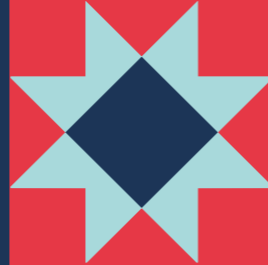
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# Enablers

A collections of  
**185** design tools  
 public available at  
**12** design toolkits



Item	Enabler	Enables	Featured in
1	2x2	Complex Problem Solving Critical Thinking Strategic Thinking	Design Thinking for Educators Toolkit The Field Guide to Human-Centered Design
2	Action Plan	Strategic Thinking	Collective Action Toolkit D-Think Toolkit Design Thinking for Educators Toolkit Planet Centric Design toolkit
3	Affinity Diagram	Adaptability and Flexibility Context Awareness Critical Thinking Empathy Learn to Learn Strategic Thinking	Civic Service Design Collective Action Toolkit D-Think Toolkit Design Council Method Bank Design Sprint Design Thinking for Educators Toolkit Designing for Public Services Service Design Tools
4	Align Your Organisation	Communication Strategic Thinking	Circular Design Guide
5	Analogous Research	Adaptability and Flexibility Creativity Critical Thinking Learn to Learn Strategic Thinking	Design Thinking for Educators Toolkit Designing for Public Services The Field Guide to Human-Centered Design
6	App Disruption	Adaptability and Flexibility Collaboration Complex Problem Solving Context Awareness Creativity Critical Thinking Environmental Awareness Envision Design Outcomes Strategic Thinking	Planet Centric Design toolkit
7	Assessment Criteria	Adaptability and Flexibility Collaboration Complex Problem Solving Critical Thinking Empathy Strategic Thinking	D-Think Toolkit Design Council Method Bank
8	Backcasting	Collaboration Creativity Envision Design Outcomes Strategic Thinking	Design Method Toolkit
9	Behavioral lenses	Context Awareness Critical Thinking Empathy Envision Design Outcomes	Design Method Toolkit
10	Benchmarking	Adaptability and Flexibility Context Awareness Critical Thinking Strategic Thinking	D-Think Toolkit
11	Bigger Impact	Complex Problem Solving Context Awareness Critical Thinking Environmental Awareness Ethics	Planet Centric Design toolkit
12	Boundary shifting	Complex Problem Solving Creativity	Design Method Toolkit
13	Brainstorm	Collaboration Complex Problem Solving Creativity	Circular Design Guide Civic Service Design Collective Action Toolkit D-Think Toolkit Design Council Method Bank Design Method Toolkit Design Thinking for Educators Toolkit Designing for Public Services Service Design Tools, The Field Guide to Human-Centered Design

Item	Enabler	Enables	Featured in
14	Brand Promise	Communication Creativity Ethics Strategic Thinking	Circular Design Guide
15	Break up/Love letter	Empathy Strategic Thinking	Design Method Toolkit
16	Build a Community	Adaptability and Flexibility Collaboration Communication Complex Problem Solving Critical Thinking Learn to Learn Strategic Thinking System Thinking	Design Thinking for Educators Toolkit
17	Build a Team	Collaboration Creativity Strategic Thinking	Circular Design Guide Design Thinking for Educators Toolkit Designing for Public Services Planet Centric Design toolkit The Field Guide to Human-Centered Design
18	Build Partnerships	Adaptability and Flexibility Communication Strategic Thinking System Thinking	Circular Design Guide Design Thinking for Educators Toolkit Designing for Public Services The Field Guide to Human-Centered Design
19	Bundle Ideas or Grow an Idea	Complex Problem Solving Creativity Critical Thinking Strategic Thinking	Collective Action Toolkit The Field Guide to Human-Centered Design
20	Business Model Canvas	Critical Thinking Strategic Thinking System Thinking	D-Think Toolkit Design Thinking for Educators Toolkit Service Design Tools, The Field Guide to Human-Centered Design
21	Business Model Flip	Critical Thinking Environmental Awareness Envision Design Outcomes Ethics Strategic Thinking System Thinking	Circular Design Guide Planet Centric Design toolkit
22	Buzz Report	Adaptability and Flexibility Strategic Thinking	D-Think Toolkit
23	Capabilities quicksheet	Complex Problem Solving Strategic Thinking System Thinking	Designing for Public Services
24	Card Sort	Collaboration Context Awareness Creativity Critical Thinking Empathy Ethics Learn to Learn	The Field Guide to Human-Centered Design
25	Circular Brainstorming	Collaboration Creativity Environmental Awareness	Circular Design Guide
26	Circular Buy-In	Communication Complex Problem Solving Critical Thinking Environmental Awareness Strategic Thinking	Circular Design Guide
27	Co-Creation Session or Workshop	Collaboration Complex Problem Solving Context Awareness Creativity Critical Thinking Empathy Strategic Thinking	D-Think Toolkit Designing for Public Services The Field Guide to Human-Centered Design

Item	Enabler	Enables	Featured in
28	Co-discovery	Collaboration Empathy Strategic Thinking	Design Method Toolkit
29	Cognitive map	Collaboration Empathy	Design Method Toolkit
30	Collage	Collaboration Complex Problem Solving Context Awareness Creativity Critical Thinking Empathy Learn to Learn	Design Method Toolkit The Field Guide to Human-Centered Design
31	Concept	Adaptability and Flexibility Communication Complex Problem Solving Creativity Critical Thinking Strategic Thinking	D-Think Toolkit Design Method Toolkit Design Thinking for Educators Toolkit Designing for Public Services Service Design Tools, The Field Guide to Human-Centered Design
32	Concept Analogies	Creativity Strategic Thinking	D-Think Toolkit
33	Concept Testing	Adaptability and Flexibility Complex Problem Solving Strategic Thinking	Circular Design Guide D-Think Toolkit Service Design Tools
34	Conversation Starters	Collaboration Communication Creativity Empathy	The Field Guide to Human-Centered Design
35	Crazy 8s	Creativity	Design Sprint
36	CSDi Matrix or Knowledge Hunt	Collaboration Complex Problem Solving Critical Thinking Empathy Learn to Learn	Collective Action Toolkit Design Thinking for Educators Toolkit
37	Cultural Probes / Design Probes	Collaboration Context Awareness Empathy Strategic Thinking	Design Method Toolkit Service Design Tools
38	Current to New Perspectives	Adaptability and Flexibility Learn to Learn Strategic Thinking	D-Think Toolkit
39	Dark side	Adaptability and Flexibility Complex Problem Solving Critical Thinking Empathy Envision Design Outcomes Ethics	Design Method Toolkit
40	Day in the life	Collaboration Context Awareness Critical Thinking Empathy Learn to Learn Strategic Thinking	Design Council Method Bank Design Method Toolkit
41	Define Goals and Success	Collaboration Critical Thinking Strategic Thinking	Collective Action Toolkit D-Think Toolkit Design Thinking for Educators Toolkit Designing for Public Services Planet Centric Design toolkit Service Design Tools, The Field Guide to Human-Centered Design
42	Define the Challenge	Adaptability and Flexibility Complex Problem Solving Context Awareness Critical Thinking Strategic Thinking System Thinking	Circular Design Guide Collective Action Toolkit D-Think Toolkit Design Thinking for Educators Toolkit Designing for Public Services The Field Guide to Human-Centered Design

Item	Enabler	Enables	Featured in
43	Define Your Audience	Complex Problem Solving Context Awareness Critical Thinking Strategic Thinking	Design Sprint Design Thinking for Educators Toolkit The Field Guide to Human-Centered Design
44	Design Principles	Communication Strategic Thinking	Service Design Tools, The Field Guide to Human-Centered Design
45	Desktop Walkthrough	Adaptability and Flexibility Creativity Critical Thinking Empathy Strategic Thinking	D-Think Toolkit
46	Determine What to Prototype	Critical Thinking Strategic Thinking	The Field Guide to Human-Centered Design
47	Divide & Conquer	Strategic Thinking	Collective Action Toolkit Design Sprint
48	Dot Voting	Collaboration Critical Thinking Strategic Thinking	Collective Action Toolkit D-Think Toolkit Design Method Toolkit Design Sprint Design Thinking for Educators Toolkit
49	Download Your Learnings	Complex Problem Solving Context Awareness Critical Thinking Empathy Learn to Learn Strategic Thinking System Thinking	Civic Service Design Collective Action Toolkit Design Thinking for Educators Toolkit Designing for Public Services The Field Guide to Human-Centered Design
50	Draw It	Collaboration Complex Problem Solving Creativity Empathy	The Field Guide to Human-Centered Design
51	Drivers and hurdles	Collaboration Context Awareness Creativity Critical Thinking Strategic Thinking	Design Council Method Bank
52	Ecosystem Map	Complex Problem Solving Context Awareness Critical Thinking Empathy Strategic Thinking System Thinking	Service Design Tools
53	Emotional Journey Map	Collaboration Context Awareness Critical Thinking Empathy Strategic Thinking	Design Method Toolkit Service Design Tools
54	Empathy in action	Adaptability and Flexibility Collaboration Creativity Empathy	Design Method Toolkit
55	Empathy map	Complex Problem Solving Context Awareness Empathy Strategic Thinking	D-Think Toolkit Design Method Toolkit Service Design Tools
56	Ethnography	Collaboration Complex Problem Solving Context Awareness Critical Thinking Empathy Learn to Learn Strategic Thinking System Thinking	Civic Service Design Design Thinking for Educators Toolkit Designing for Public Services Service Design Tools

Item	Enabler	Enables	Featured in
57	Evaluation Matrix	Adaptability and Flexibility Complex Problem Solving Critical Thinking Strategic Thinking	D-Think Toolkit Service Design Tools
58	Expert Interview	Complex Problem Solving Context Awareness Critical Thinking Envision Design Outcomes Learn to Learn Strategic Thinking System Thinking	Design Sprint Design Thinking for Educators Toolkit The Field Guide to Human-Centered Design
59	Expertise Matrix	Critical Thinking Strategic Thinking	D-Think Toolkit
60	Explore Your Hunch	Critical Thinking	D-Think Toolkit The Field Guide to Human-Centered Design
61	Extremes and Mainstreams	Collaboration Complex Problem Solving Context Awareness Creativity Critical Thinking Empathy Envision Design Outcomes Ethics Learn to Learn	The Field Guide to Human-Centered Design
62	Fake brand names	Creativity Strategic Thinking	Design Sprint
63	Find Circular Opportunities	Complex Problem Solving Critical Thinking Environmental Awareness Ethics Strategic Thinking	Circular Design Guide
64	Find Themes	Complex Problem Solving Strategic Thinking	Design Thinking for Educators Toolkit Designing for Public Services The Field Guide to Human-Centered Design
65	Fishbone diagram	Critical Thinking Envision Design Outcomes Strategic Thinking	Design Method Toolkit
66	Funding Strategy	Communication Strategic Thinking	The Field Guide to Human-Centered Design
67	Future workshop	Adaptability and Flexibility Collaboration Complex Problem Solving Empathy Envision Design Outcomes Ethics Strategic Thinking	Design Method Toolkit
68	Get Feedback	Adaptability and Flexibility Complex Problem Solving Creativity Empathy Learn to Learn Strategic Thinking	Circular Design Guide D-Think Toolkit Design Council Method Bank Design Method Toolkit Design Thinking for Educators Toolkit The Field Guide to Human-Centered Design
69	Get Visual	Creativity	The Field Guide to Human-Centered Design
70	Goal Check	Adaptability and Flexibility Critical Thinking Strategic Thinking	Collective Action Toolkit Designing for Public Services
71	Group Interview & Focus Groups	Collaboration Communication Complex Problem Solving Context Awareness Critical Thinking Empathy Envision Design Outcomes Ethics Learn to Learn Strategic Thinking System Thinking	Civic Service Design D-Think Toolkit Design Council Method Bank Design Method Toolkit Design Thinking for Educators Toolkit The Field Guide to Human-Centered Design



Item	Enabler	Enables	Featured in
72	Guided Tour	Collaboration Context Awareness Empathy	The Field Guide to Human-Centered Design
73	Gut Check	Critical Thinking	The Field Guide to Human-Centered Design
74	Here And Now	Adaptability and Flexibility Collaboration Complex Problem Solving Context Awareness Critical Thinking Environmental Awareness Envision Design Outcomes Ethics Strategic Thinking System Thinking	Planet Centric Design toolkit
75	Heuristic evaluation	Adaptability and Flexibility Critical Thinking	Design Method Toolkit
76	Hopes and fears	Adaptability and Flexibility Context Awareness Critical Thinking Envision Design Outcomes Ethics Strategic Thinking	Design Council Method Bank
77	How Might We	Complex Problem Solving Creativity Critical Thinking Envision Design Outcomes Strategic Thinking	Civic Service Design Design Sprint Design Thinking for Educators Toolkit Designing for Public Services The Field Guide to Human-Centered Design
78	Hypothesis	Complex Problem Solving Creativity Critical Thinking Envision Design Outcomes Strategic Thinking	Civic Service Design
79	Idea Remix	Creativity	Collective Action Toolkit
80	Identify Sources of Inspiration	Complex Problem Solving Critical Thinking Strategic Thinking System Thinking	Design Thinking for Educators Toolkit
81	Immersion	Collaboration Complex Problem Solving Context Awareness Creativity Critical Thinking Empathy Ethics Learn to Learn Strategic Thinking System Thinking	Civic Service Design Design Council Method Bank Design Thinking for Educators Toolkit Service Design Tools, The Field Guide to Human-Centered Design
82	Impact Assessment	Critical Thinking Learn to Learn Strategic Thinking System Thinking	Designing for Public Services
83	Influence/Impact Matrix	Critical Thinking Environmental Awareness Envision Design Outcomes Ethics Strategic Thinking	Planet Centric Design toolkit
84	Influencing forces	Complex Problem Solving Creativity Critical Thinking System Thinking	Designing for Public Services
85	Insides Out	Complex Problem Solving Critical Thinking Empathy Environmental Awareness Ethics	Circular Design Guide

Item	Enabler	Enables	Featured in
86	Insight Matrix	Adaptability and Flexibility Complex Problem Solving Critical Thinking Strategic Thinking	Civic Service Design Service Design Tools
87	Insight Statements	Complex Problem Solving Creativity Strategic Thinking	Circular Design Guide Design Thinking for Educators Toolkit Designing for Public Services The Field Guide to Human-Centered Design
88	Inspiration: Digital Systems	Adaptability and Flexibility Learn to Learn Strategic Thinking	Circular Design Guide
89	Interview	Collaboration Communication Complex Problem Solving Context Awareness Critical Thinking Empathy Ethics Learn to Learn Strategic Thinking	Circular Design Guide Civic Service Design Collective Action Toolkit D-Think Toolkit Design Method Toolkit Design Sprint Design Thinking for Educators Toolkit Designing for Public Services Service Design Tools, The Field Guide to Human-Centered Design
90	Issue Cards or Trigger Cards	Collaboration Context Awareness Creativity Empathy	Service Design Tools
91	It's Like It's Not Like	Collaboration Communication Creativity Strategic Thinking	Collective Action Toolkit
92	Iteration	Adaptability and Flexibility Critical Thinking Strategic Thinking	Design Council Method Bank Design Thinking for Educators Toolkit The Field Guide to Human-Centered Design
93	Journey Map	Complex Problem Solving Critical Thinking Empathy Strategic Thinking System Thinking	Civic Service Design D-Think Toolkit Design Council Method Bank Design Method Toolkit Design Thinking for Educators Toolkit Service Design Tools, The Field Guide to Human-Centered Design
94	Key Performance Indicator (KPI)	Adaptability and Flexibility Context Awareness Envision Design Outcomes Learn to Learn Strategic Thinking	Civic Service Design Service Design Tools
95	Learn from Nature	Creativity Critical Thinking Environmental Awareness Envision Design Outcomes Learn to Learn System Thinking	Circular Design Guide
96	Lightning Demos	Critical Thinking Empathy Learn to Learn Strategic Thinking	Design Sprint
97	Lotus blossom	Creativity	Design Method Toolkit
98	Mash-up	Creativity	Design Method Toolkit
99	Mash-Ups	Creativity	The Field Guide to Human-Centered Design
100	Materials Journey Mapping	Adaptability and Flexibility Critical Thinking Environmental Awareness Envision Design Outcomes Learn to Learn System Thinking	Circular Design Guide

Item	Enabler	Enables	Featured in
101	Methods banks	Communication Empathy Learn to Learn Strategic Thinking	Design Council Method Bank
102	Mind map	Complex Problem Solving Creativity System Thinking	D-Think Toolkit Design Method Toolkit Service Design Tools
103	Minimum viable product (MVP)	Adaptability and Flexibility Creativity Critical Thinking Strategic Thinking	Designing for Public Services
104	Mobile diary study	Collaboration Context Awareness Empathy	Design Method Toolkit
105	Monitor and Evaluate (M&E)	Adaptability and Flexibility Critical Thinking Learn to Learn Strategic Thinking	Civic Service Design Design Council Method Bank The Field Guide to Human-Centered Design
106	Moodboard	Creativity Empathy Strategic Thinking	D-Think Toolkit Design Method Toolkit
107	MoSCoW	Complex Problem Solving Critical Thinking Strategic Thinking	Design Method Toolkit Design Sprint
108	Moving Forward with Materials	Collaboration Complex Problem Solving Critical Thinking Environmental Awareness Envision Design Outcomes Strategic Thinking	Circular Design Guide
109	Nine dimensions	Collaboration Empathy	Design Method Toolkit
110	Observation	Collaboration Complex Problem Solving Context Awareness Critical Thinking Empathy Ethics Learn to Learn Strategic Thinking System Thinking	Civic Service Design Design Council Method Bank Design Thinking for Educators Toolkit Designing for Public Services Service Design Tools
111	Observation Matrix	Collaboration Complex Problem Solving Context Awareness Critical Thinking Empathy Strategic Thinking	D-Think Toolkit
112	Open-Source Scaling	Complex Problem Solving Ethics Strategic Thinking	Planet Centric Design toolkit
113	Opportunity Mind Map	Adaptability and Flexibility Collaboration Creativity Critical Thinking Strategic Thinking	D-Think Toolkit
114	Peers Observing Peers	Collaboration Complex Problem Solving Context Awareness Creativity Empathy Learn to Learn	The Field Guide to Human-Centered Design

Item	Enabler	Enables	Featured in
115	People Planet Profit	Adaptability and Flexibility Complex Problem Solving Critical Thinking Environmental Awareness Envision Design Outcomes Strategic Thinking System Thinking	Design Method Toolkit
116	Persona	Context Awareness Critical Thinking Empathy Strategic Thinking	D-Think Toolkit Design Council Method Bank Design Method Toolkit Service Design Tools
117	Photo safari	Collaboration Context Awareness Critical Thinking Empathy	Design Method Toolkit
118	Pilot	Adaptability and Flexibility Complex Problem Solving Context Awareness Critical Thinking Empathy Envision Design Outcomes Learn to Learn Strategic Thinking System Thinking	Circular Design Guide D-Think Toolkit Design Council Method Bank Designing for Public Services The Field Guide to Human-Centered Design
119	Pitch	Communication Creativity Strategic Thinking	Collective Action Toolkit Design Thinking for Educators Toolkit Designing for Public Services The Field Guide to Human-Centered Design
120	Planet Centric Bootcamp	Adaptability and Flexibility Complex Problem Solving Context Awareness Critical Thinking Environmental Awareness Envision Design Outcomes Ethics Strategic Thinking System Thinking	Planet Centric Design toolkit
121	Planet Centric Concept	Adaptability and Flexibility Complex Problem Solving Creativity Critical Thinking Environmental Awareness Envision Design Outcomes Ethics	Planet Centric Design toolkit
122	Planet Centric Ideation	Collaboration Complex Problem Solving Creativity Critical Thinking Environmental Awareness Envision Design Outcomes System Thinking	Planet Centric Design toolkit
123	Planet Centric User Journey	Collaboration Complex Problem Solving Critical Thinking Environmental Awareness Envision Design Outcomes Ethics Strategic Thinking	Planet Centric Design toolkit
124	Problem Statement	Complex Problem Solving Critical Thinking Empathy Envision Design Outcomes Strategic Thinking	Civic Service Design

Item	Enabler	Enables	Featured in
125	Problem tree	Complex Problem Solving Strategic Thinking	Design Method Toolkit
126	Product Journey Mapping	Adaptability and Flexibility Critical Thinking Environmental Awareness Envision Design Outcomes Strategic Thinking	Circular Design Guide
127	Product Redesign Workshop	Adaptability and Flexibility Collaboration Communication Complex Problem Solving Creativity Critical Thinking Environmental Awareness Envision Design Outcomes Ethics Learn to Learn Strategic Thinking System Thinking	Circular Design Guide
128	Project Plan	Strategic Thinking	Design Sprint Design Thinking for Educators Toolkit Designing for Public Services The Field Guide to Human-Centered Design
129	Prototype	Adaptability and Flexibility Complex Problem Solving Creativity Critical Thinking Empathy Learn to Learn	Circular Design Guide Civic Service Design Collective Action Toolkit D-Think Toolkit Design Council Method Bank Design Method Toolkit Design Sprint Design Thinking for Educators Toolkit Designing for Public Services Service Design Tools, The Field Guide to Human-Centered Design
130	Prototype for empathy	Complex Problem Solving Context Awareness Creativity Critical Thinking Empathy Ethics	Design Method Toolkit
131	Qualitative Research	Complex Problem Solving Context Awareness Empathy Learn to Learn	Circular Design Guide Civic Service Design Collective Action Toolkit D-Think Toolkit Design Method Toolkit Design Sprint Design Thinking for Educators Toolkit Designing for Public Services Service Design Tools, The Field Guide to Human-Centered Design
132	Quantitative Research	Complex Problem Solving Context Awareness Critical Thinking Ethics Learn to Learn	Civic Service Design D-Think Toolkit Design Council Method Bank Designing for Public Services
133	Radical/Realist Matrix	Strategic Thinking	Planet Centric Design toolkit
134	Reality Check	Adaptability and Flexibility Complex Problem Solving Context Awareness Critical Thinking Strategic Thinking	Design Thinking for Educators Toolkit
135	Recruite Participants	Critical Thinking Strategic Thinking	Design Council Method Bank Design Thinking for Educators Toolkit Designing for Public Services Service Design Tools, The Field Guide to Human-Centered Design

Item	Enabler	Enables	Featured in
136	Regenerative Thinking	Adaptability and Flexibility Complex Problem Solving Critical Thinking Environmental Awareness Envision Design Outcomes Strategic Thinking System Thinking	Circular Design Guide
137	Relational Map	Complex Problem Solving Critical Thinking Strategic Thinking	Design Thinking for Educators Toolkit The Field Guide to Human-Centered Design
138	Research collage	Adaptability and Flexibility Collaboration Complex Problem Solving Context Awareness Critical Thinking Empathy	Design Method Toolkit
139	Research Plan	Critical Thinking Strategic Thinking	Service Design Tools
140	Resource Assessment	Adaptability and Flexibility Critical Thinking Strategic Thinking	The Field Guide to Human-Centered Design
141	Resource Flow	Collaboration Context Awareness Empathy	The Field Guide to Human-Centered Design
142	Rings of Connection	Collaboration Complex Problem Solving Critical Thinking Strategic Thinking System Thinking	Collective Action Toolkit
143	Ripple Effect	Creativity Critical Thinking Envision Design Outcomes Strategic Thinking System Thinking	Collective Action Toolkit
144	Roadmap	Strategic Thinking System Thinking	D-Think Toolkit Designing for Public Services Service Design Tools, The Field Guide to Human-Centered Design
145	Role Play	Adaptability and Flexibility Communication Complex Problem Solving Critical Thinking Empathy	Collective Action Toolkit D-Think Toolkit Design Council Method Bank Design Thinking for Educators Toolkit Designing for Public Services Service Design Tools, The Field Guide to Human-Centered Design
146	Rumble or all-in-one	Critical Thinking Strategic Thinking	Design Sprint
147	Scenarios	Creativity Critical Thinking Empathy Strategic Thinking	D-Think Toolkit Design Council Method Bank Design Method Toolkit Service Design Tools
148	Secondary Research	Complex Problem Solving Context Awareness Critical Thinking Envision Design Outcomes Ethics Learn to Learn Strategic Thinking	Civic Service Design D-Think Toolkit Design Council Method Bank Design Method Toolkit Design Thinking for Educators Toolkit The Field Guide to Human-Centered Design
149	Service Blueprint	Strategic Thinking System Thinking	D-Think Toolkit Design Council Method Bank Planet Centric Design toolkit Service Design Tools

Item	Enabler	Enables	Featured in
150	Service Flip	Adaptability and Flexibility Complex Problem Solving Creativity Critical Thinking Environmental Awareness Strategic Thinking	Circular Design Guide
151	Service Image	Communication Creativity	Service Design Tools
152	Service Safari	Adaptability and Flexibility Collaboration Context Awareness Empathy Learn to Learn Strategic Thinking	Civic Service Design
153	Service Specifications	Communication Strategic Thinking	Service Design Tools
154	Share Inspiring Stories	Collaboration Context Awareness Critical Thinking Empathy Learn to Learn	Collective Action Toolkit Design Thinking for Educators Toolkit Designing for Public Services Planet Centric Design toolkit The Field Guide to Human-Centered Design
155	Sketch	Creativity	D-Think Toolkit Design Council Method Bank Design Thinking for Educators Toolkit
156	Skill Share	Collaboration Complex Problem Solving Learn to Learn Strategic Thinking	Collective Action Toolkit Designing for Public Services
157	Smart Material Choices	Complex Problem Solving Critical Thinking Environmental Awareness Envision Design Outcomes System Thinking	Circular Design Guide
158	Staff Your Project	Strategic Thinking	The Field Guide to Human-Centered Design
159	Stakeholder Map	Complex Problem Solving Critical Thinking Strategic Thinking System Thinking	Civic Service Design D-Think Toolkit Design Method Toolkit Service Design Tools
160	Sticky Decision	Adaptability and Flexibility Collaboration Strategic Thinking	Design Sprint
161	Storyboard	Adaptability and Flexibility Communication Complex Problem Solving Creativity Critical Thinking Strategic Thinking	Collective Action Toolkit D-Think Toolkit Design Method Toolkit Design Sprint Design Thinking for Educators Toolkit The Field Guide to Human-Centered Design
162	Storytelling	Communication Creativity Empathy	Circular Design Guide Collective Action Toolkit Design Method Toolkit Design Thinking for Educators Toolkit
163	Survey & Questionnaire	Communication Complex Problem Solving Context Awareness Empathy Ethics Learn to Learn	Civic Service Design D-Think Toolkit Design Council Method Bank Design Method Toolkit Service Design Tools
164	Sustainability Storytelling	Communication Creativity Critical Thinking Environmental Awareness Ethics Strategic Thinking	Planet Centric Design toolkit

Item	Enabler	Enables	Featured in
165	Sustainable Revenue	Strategic Thinking	The Field Guide to Human-Centered Design
166	SWOT Analysis	Critical Thinking Strategic Thinking	D-Think Toolkit
167	System Map	Strategic Thinking System Thinking	Service Design Tools
168	Systemic Touchpoints	Complex Problem Solving Critical Thinking Environmental Awareness Envision Design Outcomes Ethics System Thinking	Planet Centric Design toolkit
169	Test	Adaptability and Flexibility Collaboration Empathy Learn to Learn	Design Council Method Bank Design Method Toolkit Design Sprint The Field Guide to Human-Centered Design
170	Tomorrow's Narratives	Communication Critical Thinking Strategic Thinking	Service Design Tools
171	Top Five	Complex Problem Solving Creativity Strategic Thinking	The Field Guide to Human-Centered Design
172	Trend Observation	Complex Problem Solving Context Awareness Critical Thinking Strategic Thinking	D-Think Toolkit
173	Understand Circular Flows	Adaptability and Flexibility Complex Problem Solving Critical Thinking Environmental Awareness Envision Design Outcomes Ethics Strategic Thinking System Thinking	Circular Design Guide
174	User diaries	Collaboration Complex Problem Solving Context Awareness Critical Thinking Empathy Strategic Thinking	Design Council Method Bank
175	User Stories	Adaptability and Flexibility Empathy Strategic Thinking	Service Design Tools
176	User Testing	Adaptability and Flexibility Collaboration Creativity Empathy Learn to Learn Strategic Thinking	Design Council Method Bank Design Sprint Design Thinking for Educators Toolkit Designing for Public Services
177	Value Map	Adaptability and Flexibility Communication Critical Thinking Strategic Thinking	Collective Action Toolkit Service Design Tools
178	Value Proposition Canvas	Adaptability and Flexibility Communication Critical Thinking Empathy Strategic Thinking	Service Design Tools
179	Venn Diagram	Critical Thinking Strategic Thinking	Design Method Toolkit Design Thinking for Educators Toolkit
180	ViP (Deconstruct)	Adaptability and Flexibility Critical Thinking Envision Design Outcomes Strategic Thinking	Design Method Toolkit

Item	Enabler	Enables	Featured in
181	ViP (Design)	Adaptability and Flexibility Context Awareness Envision Design Outcomes	Design Method Toolkit
182	Vision Statement	Communication Strategic Thinking	D-Think Toolkit
183	Ways to Grow Framework	Communication Critical Thinking Strategic Thinking	The Field Guide to Human-Centered Design
184	Wider Lens	Adaptability and Flexibility Collaboration Complex Problem Solving Context Awareness Critical Thinking Environmental Awareness Envision Design Outcomes Ethics Strategic Thinking System Thinking	Planet Centric Design toolkit
185	WWWWWH	Complex Problem Solving Critical Thinking	Design Method Toolkit

