20 INNOVATION TOOLS WITH IMPACT

...That can help make the innovation process more successful—and enjoyable.
What if?

- We could respond twice as fast to customer needs?
- We could create services and products which nail the real needs better than even the customers expect?
- We could stand apart from competition by having work processes as our core strategic competence?
- We could create project visions which all project members would truly fight for?

Innovation is about managing three objectives at the same time:
5 innovation principles

Learn from reality
First-hand experience with users and experts will uncover better insights and strengthen our concepts.

Make it visual – together
A visual and team-based process creates more insightful knowledge than individual work.

Make prototypes before detailing
Many simple and fast prototypes will increase the speed of learning.

Follow a systematic approach
Following few key standards supports a “common language” and reduces re-invention.

Improve continuously
Small and frequent learning loops are better than large and infrequent learning loops.
The 5D loop

1 Define
Frame the challenge and plan the process

2 Discover
Collect and share real insights

3 Direct
Map opportunities and specify directions

4 Design
Generate ideas and design concepts

5 Develop
Develop prototypes and test concepts

6 Manage the process

1 Define
2 Discover
3 Direct
4 Design
5 Develop
6 Manage the process
## 5D loop

**1 Define**
- 1. Project objectives
- 2. Solution space
- 3. Frontloading

**2 Discover**
- 4. User interviews
- 5. User observations
- 6. Expert interviews
- 7. Trend mapping
- 8. Competition and market mapping

**3 Direct**
- 9. Knowledge wall
- 10. Persona profiles
- 11. Concept specification
- 12. Opportunity mapping

**4 Design**
- 13. Design matrix
- 14. Concept description

**5 Develop**
- 15. Fast prototyping
- 16. Feedback sessions

### Process focus

**6 Manage the process**
- 17. Visual planning
- 18. Project risk management
- 19. Project kickoff
- 20. Weekly status
Project objectives

WHAT?
“Project objectives” is a definition of: WHY are we doing this project, HOW MUCH effect must the solution have to be a success, and WHAT must the project deliver in order to achieve that.

WHY?
When discussing and agreeing on the objectives, there is a better chance of delivering value. The project task will be clearer, which will help create a common direction in the team. Clear and shared objectives are the fuel for positive commitment and great solutions.

HOW?
Define the project objectives early in the project and do it at a workshop – adjusted to the size of the project:

• Define the purposes of the project (the WHY)
  – Try to define purposes from both the organisation’s and the user’s point of view

• Define success criteria of the solution (the HOW GREAT)
  – Go through each purpose and define matching success criteria
  – The success criteria set the ambition level of the project

• Define the specific and tangible deliverables that the project has produced on the final day of the project (the WHAT)

• Document the above on the visual planning poster (tool 17), and discuss it with colleagues
Make sure that everyone in the project team shares the same dream

**Purpose**

**WHY are we doing this project?** *(E.g.)*
- “To become the market leader within the XX segment in Europe and the USA”
- “To provide a better product and service for the XX segment, which truly fulfil their needs”

**Success criteria**

**HOW GREAT must the solution be?** *(E.g.)*
- “1 million products sold before XX”
- “30% of the target users, as a minimum, have bought the product more than once before XX”

**Deliverables**

**WHAT must we deliver at the end of the project?** *(E.g.)*
- “Product tested and validated before XX”
- “Production equipment tested and ready for large-scale production before XX”
- “Marketing material and campaign developed before XX”

**Tips**

- Even if the project objectives are “handed down to the team”, it still makes sense for the team to put in their own words and get it reconfirmed by the management
- Do it as a team task and make sure that you all share the same dream
- Write the success criteria and deliverables SMART *(Specific, Measurable, Accepted, Realistic and Time-framed)*
**WHAT?**
“Solution space” is used for defining the intended boundaries of the project. The aim is to connect the innovation strategy to the specific project as well as to identify the scope for the specific project.

The defined solution space can be used for both discussions with project sponsors and within the team.

**WHY?**
Defining the solution space helps align expectations to the project. It also helps get a clear connection to the strategy and guide the innovation process. Finally, it helps sharpen the project objectives.

**HOW?**
- Brainstorm on strategic possibilities
  - Arrange an open brainstorm about options/features which might or might not be part of the project/solution
- Define the project boundaries
  - Agree on dimensions to be discussed in the solution space
  - Place issues/post-its under the subject where you think they belong (desirable, discussable or unthinkable)
- Let the discussion be a guide for adjusting the project objectives and the process
- Verify the solution space or key issues with the project sponsor
Align expectations and define project boundaries

Tips

• Make sure to align boundaries with the project objectives, especially when aiming for a breakthrough product
• Consider inviting people outside the core team in order to broaden the view of the discussion
• Try to minimise the number of post-its in the “discussable area”
WHAT?
“Frontloading” is an approach to accelerate the joint knowledge in the beginning of projects. It is performed at a workshop with key project stakeholders. Frontloading can also be applied when the project moves to a new phase.

WHY?
By definition, projects have too little knowledge in the beginning. If the team is able to frontload and create a high level of shared knowledge at an early stage, it will be easier to find a great solution.

HOW?
• Review the project objectives
• Individually, start brainstorming on all the questions you would like to have answered to design an outstanding solution for the users
• When you have found a reasonable number of questions, present the questions in the team and group them according to discipline/area
• Within each discipline/area, prioritise the questions according to importance vs urgency
• Discuss methods to find the answers and assign responsibilities in the team
• Use the questions as a basis for planning the “discover step” – make it visible on the visual planning poster
• Share the findings every week on the knowledge wall (tool 9) in order to get a common/broad knowledge base
Accelerate your knowledge in the beginning of projects

1. Generate questions from a wide range of perspectives when thinking of e.g.:
   - Customers: Users and other stakeholders
   - Context: Political, economic, social and technological factors
   - Competition: Market and competitive situation
   - Collaborators: Partners and suppliers
   - Company: Strategies, capabilities and resources

2. Grouping of questions

<table>
<thead>
<tr>
<th>Supply chain</th>
<th>Marketing</th>
<th>Engineering</th>
</tr>
</thead>
</table>

3. Prioritisation of each area

   Marketing questions

   - Importance
   - Urgency

4. Discuss methods and persons responsible for finding the answers

<table>
<thead>
<tr>
<th>Questions</th>
<th>Method</th>
<th>Who</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 user interviews</td>
<td>Bob</td>
</tr>
<tr>
<td></td>
<td>Competitor analysis</td>
<td>Joe</td>
</tr>
</tbody>
</table>

Tips

- Consider starting the project with a 2-3 hour frontloading session where you also have time to find the best answers possible during the day (e.g. by making telephone interviews and internet research)
- Attempt to formulate specific questions rather than just key words or themes
WHAT?
“User interviews” are used to gain in-depth understanding and empathy for future users. Interviews should be conducted in the everyday context of the users to make the understanding more real. The term “user” covers everyone in touch with the product during the consumption chain, e.g. retailers, buyers of the product and end users.

WHY?
In-context interviews develop a deep and rich view into the behaviours, thoughts and lives of users and are the best way of uncovering functional, emotional and social needs. The aim is to generate a foundation of new insights, which is necessary.

HOW?
• Identify and select users to be interviewed. Include the target group of the product but consider all users throughout the consumption chain
• Prepare interview guide by brainstorming themes and key questions for the user. Explore the values, desires, frustrations and aspirations of the user. Consider using visual stimuli, e.g. showing competing products
• Preferably, interview in pairs and take notes during the interview. The interview should be like a conversation allowing for improvisation
• Fill in the template for user interviews and observation knowledge capture (one template per user)
• Share key conclusions and insights with the team on the knowledge wall (tool 9)
Do not ask users what they want but what they do

1. Questions or key themes
   - Ask for specific stories
   - Ask plenty of “why” questions to understand issues in depth
   - Ask for feelings/concerns
   - Ask for needs/problems and not solutions
   - Etc.

2. Make interview guide

3. Conduct interview

4. Write down conclusions in the knowledge capture template

<table>
<thead>
<tr>
<th>Date:</th>
<th>Project:</th>
<th>Who:</th>
<th>Interviewer:</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the user saying?</td>
<td>What is the user thinking?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is the user doing?</td>
<td>What is the user feeling?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functional, emotional and social needs?</td>
<td>Topics to explore further?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What surprised me?</td>
<td>Ideas?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tips

- All team members should have some face-to-face experiences with users – it creates a common understanding and motivation
- Always consider when professional support is needed for user interviews
- Insights are ways of seeing the ordinary in new ways. Notice contradictions and strange behaviours
- As a general guideline, 10 individual interviews should be conducted to uncover all needs for each market segment
User observations

WHAT?
“User observations” are a method for uncovering both articulated and latent needs of the users. By studying the world of the users, the observer can analyse and uncover new insights that can fuel the innovation process.

WHY?
Users are rarely capable of articulating their needs, not to mention foreseeing future needs. Observation will allow you to understand the intangible meaning of experiences and activities of the users.

HOW?
• Define the topic for research
  – Do not only focus on the concrete product in question but also on the general activities that surround the product, e.g. “vacuuming the living room” or “cleaning the car” (product = vacuum cleaner)
• Identify users to be observed
  – Make sure to cover different user profiles and contexts
• Observe users in their everyday context
  – Pay close attention to surprising behaviours, extremes, frustrations, workarounds etc.
  – Record your findings in different formats that support your observations, e.g. pictures, quotes and video
• Fill in the template for user interviews and observation knowledge capture
• Share key observations and insights with the team on the knowledge wall (tool 9)
• Find patterns and identify actionable needs and insights
  – Start with concrete observations of “what” and “how”, then move on to try to understand “why”
Observe the user’s world and understand what really happens

1. Conduct observations

2. Write conclusions in the knowledge capture template

User interviews and observations knowledge capture

<table>
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<td>What is the user doing?</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Functional, emotional and social needs?

Topics to explore further?

What surprised me?

Ideas?

Tips

- Needs can be understood as “jobs to be done” in a given context. These can be both functional, emotional and social. In general, go for the formula “[USER] wants to [NEED] so that [INSIGHT]”
- Try not to be prejudiced about how things work – be curious
Expert interviews

WHAT?
“Expert interviews” are used to gather insights from external stakeholders and specialists, such as industry experts, food specialists, retailers, suppliers as well as internal stakeholders in your company.

WHY?
Expert interviews can help identify problems, misunderstandings, wants or needs faced by the stakeholders. The interviews must help identify key insights/experiences and cutting-edge knowledge within a given area.

HOW?
- Identify the relevant experts (check frontloading questions and stakeholder map)
- Define the questions you want to ask, e.g.:
  - What are the pros and cons of existing products?
  - What are the trends/movements within this area?
  - What are the key risks/barriers?
  - What would the best possible product look like in your opinion?
- Prepare an interview guide
  - Use a semi-structured approach, allowing you to adjust the interview flow according to the situation
- Conduct the interview and note down insights and new ideas during the meeting
- Conclude on the interview by filling in the generic knowledge capture template
- Share key insights with the team on the knowledge wall (tool 9)
Tap into the expert knowledge that already exists

1. Knowledge need (from frontloading/other)

2. Write down conclusions in the knowledge capture template

Tips

- Let the expert understand your challenge
- Make friends while you get what you need
- Ask open questions and ask “why” many times
- Record video/take pictures if the stakeholders can demonstrate relevant actions or artefacts
**WHAT?**
A “trend map” is an overview of the most important driving forces influencing the market in question. The map inspires the innovation process and defines important factors that should be considered during detailed user research.

**WHY?**
Trends both limit and direct innovation. On one hand, it is essential to identify barriers due to e.g. regulation or environmental factors. On the other hand, trends are a source of inspiration. Furthermore, the trend map gives the team a common language and helps share important knowledge.

**HOW?**
- Define the areas to be investigated during the trend mapping
  - Make sure to review trend material already existing in the organisation
- Identify trends through a combination of desk research, interviews with key experts or users and team-based brainstorming
  - Describe each trend in detail if needed (use the trend profile template)
  - Start with an open mindset and remember emerging micro-trends and the periphery. Look across industries
- Validate and assess the impact and the time to impact of the identified trends (use secondary data, if needed)
- Prepare trend map and trend descriptions to be used for ideation and brainstorming sessions
- Conclude on the trend picture in the generic knowledge capture template and present it to the team on the knowledge wall (tool 9)
Identify the trends which impact on the solution

1. Describe the key trends

<table>
<thead>
<tr>
<th>Trend profile</th>
<th>Date:</th>
<th>Project:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illustrations and cases</td>
<td>Trend description</td>
<td>Market impact?</td>
</tr>
<tr>
<td>LED light</td>
<td>Potential innovations and applications?</td>
<td></td>
</tr>
</tbody>
</table>

- Market impact?
  - High
  - Low

- Technological realisation complexity?
  - High
  - Low

- Evaluation and consequences?
  - High
  - Low

2. Make the trend map

3. Capture conclusions in the template

<table>
<thead>
<tr>
<th>Knowledge capture template</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
</tr>
<tr>
<td>Illustrations &amp; cases</td>
</tr>
<tr>
<td>- Surprises?</td>
</tr>
<tr>
<td>- Opportunities?</td>
</tr>
<tr>
<td>- New topics?</td>
</tr>
</tbody>
</table>

Tips

- Consider to also include technology trends, macro-trends and analogue industry trends (inspiration from other industries)
- Be as concrete as possible and strive for novel insights in order to strengthen creativity. High-level trends should be broken down
- The outcome of the trend research must be actionable. Loose descriptions and general observations are of little value
- Consider using cases and visuals when presenting the trends
WHAT?
“Competition and market mapping” can be used for exploring competing solutions and substitutes. Furthermore, the map can be used for systematically evaluating which features and benefits can be raised, reduced, eliminated or added when developing your solution.

WHY?
You need to understand the competitive forces of the market and industry under consideration. The map is a concrete and visually oriented tool that will guide you on how to differentiate your product/service.

HOW?
• Define the market to be mapped. Consider an outside-in approach in order to start from the perspective of the user
• Identify competing solutions and, if needed, perform a detailed analysis of the market and the individual products
• Illustrate/consolidate competing products as value curves by decomposing the product experience into meaningful variables
• List the variables according to perceived importance to the user and assess the relative performance of the competing solutions
• Analyse and identify white spaces and opportunities in the marketplace
• Conclude on the competition picture in the generic knowledge capture template and present it to the team on the knowledge wall (tool 9)
Spot the white spaces and fulfil user needs better than competitors

1. Analyse competing products

2. Map competing products as value curves

3. Identify white spaces and capture conclusions in the template

### Value curve

- **Date:**
- **Project:**

### Knowledge capture template

- **Date:**
- **Project:**

<table>
<thead>
<tr>
<th>Value curve</th>
<th>Key conclusions?</th>
<th>Surprises?</th>
<th>Opportunities?</th>
<th>New topics?</th>
</tr>
</thead>
</table>

### Tips

- Supplement your analysis with positioning matrices that provide an overview of the market.
- Be careful not to assume that all variables are equally important to all users. You might have to consider different segments and target groups when drawing the map.
- Use the value curve for concept development: raise, reduce, add or remove variables.
WHAT?
The “knowledge wall” is a visual way of sharing knowledge in the project team throughout the innovation process. The wall is used for discovering and interpreting affinities between information and, consequently, identifying innovation opportunities.

WHY?
Sharing, interpreting and connecting knowledge is a key activity in an integrated development process. It forms the basis for joint identification and prioritisation of innovation opportunities. The wall provides a team-based overview and enables team members from different functional backgrounds to develop a shared understanding of the situation.

HOW?
• Prepare wall
  – Put up the knowledge poster (shown on the opposite page) on a wall in your project room
• Share gathered knowledge frequently
  – Team members share gathered knowledge by presenting their knowledge capture templates or relevant conclusions (focus: key issues and stories)
• Together, the team captures key conclusions and stick these on the wall (post-its/slides/pictures etc.)
• Group knowledge and insights in order to identify affinities
  – Start the grouping when you have gathered a reasonable amount of knowledge
  – Review and detail the grouping before starting to formulate the concept specification (tool 11)
• Share your initial concept ideas on the wall frequently
Share gathered knowledge visually and continuously

<table>
<thead>
<tr>
<th>KNOWLEDGE WALL</th>
<th>DISCOVER</th>
<th>COMBINE</th>
<th>IDEAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers &amp; users</td>
<td>Key conclusions and insights</td>
<td>Visual design</td>
<td>Idea A</td>
</tr>
<tr>
<td>Context</td>
<td></td>
<td></td>
<td>Idea B</td>
</tr>
<tr>
<td>Competition</td>
<td></td>
<td>Functionality</td>
<td></td>
</tr>
<tr>
<td>Collaboration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Company</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Tips**

- Also use the knowledge wall for sharing ideas or concepts that you may generate while gathering knowledge
- Pictures and other inspirational information can also be shared on the wall
- When identifying affinities, start to think about concept criteria to be included in the concept specification (tool 11)
- Take high-quality pictures of the wall to share with the team
Persona profiles

WHAT?
“Persona profiles” are archetypal but fictional characters representing the needs of larger groups of users in terms of their goals, behaviour and personal characteristics. They act as stand-ins for real users and help guide innovation and decisions. Personas are built based on both quantitative and qualitative user research.

WHY?
A set of personas reduces large amounts of data into a manageable overview and breathes life into needs-based segmentation. In that way, personas can direct concept generation because user goals and needs become a common point of focus.

HOW?
• Capture findings and conclusions related to the particular user on the knowledge wall. Use one post-it for each conclusion and make sure to cover the main themes in the persona template
• Identify relevant dimensions of commonality and difference. These dimensions could be based on demographic information, user needs or product-related behaviour
• Group related findings and create personas based on similarities. A persona represents a set of users with similar needs. Prioritise which needs to highlight based on frequency and importance
• Create fictional characters and bring the characters to life through stories that engage the team
• Use the personas to acid test concept specification and generated concepts
Direct your ideation by really understanding your target users

1. Identify behavioural variables
2. Identify significant behaviour patterns
3. Check for completeness and redundancy
4. Designate persona types
5. Map interview subjects to behavioural variables
6. Synthesise characteristics and relevant goals
7. Expand description of attributes and behaviours

Persona profile

Date: Project:

Who (name, age, sex, education, family, job) Size of group

Daily life, work, interests and goals
Likes and dislikes
Behaviour and attitudes

THINKS AND FEELS SAYS AND DOES

Needs? Surprising insights?

Tips

- Express needs in terms of “what” the product has to do and not “how” to do it
- When discussing the personas, try to identify specific barriers to consumption (e.g. time, money, access) and motivators (e.g. exciting shopping experience)
WHAT?
A “concept specification” is a list of criteria and target requirements for a new concept. A concept criterion is a qualitative statement of a user need or a business constraint that sets the direction for concept development and for evaluation. A target requirement is a quantitative statement of a criterion consisting of a metric and a performance measure.

WHY?
It helps the project team obtain a common view on what “a good concept” would be. Thus, the concept development has a clear objective in connection with the development and evaluation of new concepts.

HOW?
• Systematically go through the knowledge wall and brainstorm on concept criteria in order to identify “what constitutes a great solution”
  – Clearly distinguish between user needs and business constraints
    – do not mix needs with internal limitations
  – Criteria should be specific and describe “what” the solution must do and not “how” it does it
  – Express the criteria as specifically as the key conclusions and without implying a level of importance
• Specify measurable target requirements (if appropriate)
  – Define an ideal value and a range of acceptable values for the concept criterion in question
• Evaluate the importance (column I) of each concept criterion to identify opportunities on a scale from 1 (low) to 10 (high)
  – Evaluate user needs from the user’s point of view and not from an internal perspective
Transform user and expert statements into a concrete specification

Example of a concept specification for a new lamp

<table>
<thead>
<tr>
<th>Area</th>
<th>Concept criteria</th>
<th>Target requirements</th>
<th>I</th>
<th>S</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>User needs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functional needs</td>
<td>The product can provide several light levels which can be easily changed</td>
<td>Min. 3 levels in the range of 0-300 lux</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Segment A</td>
<td>The product provides light with a glow that is pleasant both when working and relaxing</td>
<td>80% of target users find the product as good as the best lamps with incandescent bulbs</td>
<td>10</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>The product is customisable and can be tailored according to different types of desk tables</td>
<td>-</td>
<td>6</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Social needs</td>
<td>The product has an appealing and modern look which matches a typical 4-5 roomed central London flat</td>
<td>-</td>
<td>2</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Segment A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Constraints</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal</td>
<td>The product complies with EU legislation</td>
<td>No use of incandescent bulbs</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Branding</td>
<td>The product is part of our global branding strategy and campaign</td>
<td>-</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| I = Importance  S = Satisfaction  O = Opportunity score |

**Tips**

- Remember only to specify a few requirements in the beginning in order to avoid limiting the solution space too much. User requirements should not be limited by internal constraints. In the long run, everything is possible.
- Develop one set of concept criteria for each target user segment. Each segment has unique needs.
- When the final concept has been defined, refine and update the specification (all targets should be known) and change the name to design specification.
Opportunity mapping

**WHAT?**
Through “opportunity mapping”, a concept specification (tool 11) is systematically analysed and transformed into a number of distinct, actionable and exciting innovation opportunities that set the direction for ideation and concept development.

**WHY?**
In a crowded marketplace with intense competition, we need to focus on delivering great solutions that fulfil unique user needs and solve user pains. Opportunity mapping helps zoom in on the problems that the users want to solve and to identify the white spaces where competition is still limited.

**HOW?**
- Evaluate the user’s satisfaction with the existing and competing solution’s ability to fulfil the needs on the concept specification
  - Evaluate the user satisfaction (column S) on a scale from 1 (low) to 10 (high) for all user concept criteria (not constraints)
- Calculate the opportunity score (column O) and plot the evaluation of importance and satisfaction on the opportunity map
  - Opportunity score = importance + (importance – satisfaction)
  - The amount in the parenthesis can never be less than zero
- Identify distinct opportunities and gaps in the marketplace on the basis of the most important and unsatisfied user needs
- Conclude by describing each distinct opportunity (e.g. 3-4 opportunities) in the opportunity statement template
  - Catch the essence of the opportunity in an actionable, user-oriented and compelling problem statement that excites the team
Spot innovation opportunities in a crowded marketplace

1. Evaluate concept criteria

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<td>7</td>
</tr>
<tr>
<td>Segment A</td>
<td>The product provides light with a glow that</td>
<td>Unbiased tests show that 80% of the target</td>
<td>10</td>
<td>3</td>
<td>17</td>
</tr>
</tbody>
</table>

2. Draw opportunity map

3. Identify innovation opportunities

Innovation opportunity statement

Date: Project:

What is the exciting headline?

Help me impress my boss … and the girls

What is the key problem to be solved for the user?

What does it look like?

*Modern young business man needs to stay up late working in a convenient light environment without spoiling his classy condo because he wants to impress his boss and the London single girls at the same time*

What are the surprising insights that we can leverage to solve?

*Modern young business man needs to stay up late working in a convenient light environment without spoiling his classy condo because he wants to impress his boss and the London single girls at the same time*

What are the key concept criteria to be considered?

Tips

- Opportunities are segment-specific and can be formulated using a simple formula that synthesises the team’s research:
  - “[USER] needs to [USER’S NEED] because [SURPRISING INSIGHT]”
- An opportunity is not a solution. Rather, it suggests more than one solution. It defines a space of possibility in which to generate solutions and rearticulates problems or needs in a generative and future-oriented way
- You have succeeded when the team understands ordinary things in new ways and you are dealing with implicit needs rather than explicit problems
WHAT?
The “design matrix” is a structured way of exploring the possible solutions to a challenge. This is done by breaking down a product, service or experience into minor sub-elements and generating alternatives for each of them. The design matrix is used as a basis for generating 3-5 different concepts.

WHY?
The design matrix is a structured way of increasing creativity. It helps expand and challenge the solution space by increasing the number of alternative concepts. It also helps communicate the agreed scope of the solution space.

HOW?
• Take your starting point in the innovation opportunities (tool 12)
• Try to define all the different product elements that constitute the overall solution (see the opposite page for inspiration)
• For each element, brainstorm on alternative sub-solutions
  – Individually, write your ideas on post-its and stick them to a piece of paper
  – Exchange the papers in the group frequently in order to be inspired by your colleagues’ ideas
• Stick all the ideas to the design matrix and explore various combinations of sub-solutions which constitute interesting holistic concepts
• Discuss and improve the best sub-solutions under each element
• Select the best 3-5 overall concepts and give each of them a catchy name
• Test, improve and detail the selected concepts
Develop alternative concepts in a structured manner

Example of a design matrix for a new lamp

<table>
<thead>
<tr>
<th>Elements/deliverables</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light source</td>
<td>Bulb</td>
<td>Led</td>
<td>Energy</td>
<td>Neon</td>
</tr>
<tr>
<td>Connection</td>
<td>Standard cord</td>
<td>Cordless</td>
<td>Etc.</td>
<td></td>
</tr>
<tr>
<td>Mount</td>
<td>Standing</td>
<td>Wall</td>
<td>Ceiling</td>
<td>Etc.</td>
</tr>
<tr>
<td>Cover</td>
<td>Plastic</td>
<td>Glass</td>
<td>Transparent</td>
<td>Paper</td>
</tr>
<tr>
<td>Frame</td>
<td>Plastic</td>
<td>Steel</td>
<td>Aluminium</td>
<td>Etc.</td>
</tr>
<tr>
<td>Packaging</td>
<td>Round plastic box</td>
<td>Square cardboard</td>
<td>Etc.</td>
<td></td>
</tr>
<tr>
<td>Channel</td>
<td>Only www</td>
<td>Large retail</td>
<td>Luxury</td>
<td>IKEA type</td>
</tr>
<tr>
<td>Service</td>
<td>Service plan</td>
<td>Life warranty</td>
<td>No service</td>
<td>Etc.</td>
</tr>
</tbody>
</table>

Tips

- Consider using fast prototyping (tool 15) when evaluating the alternative solutions
- Make sure that the 3-5 generated overall concepts really are different
- Try to develop extreme concepts which are optimised to a single criterion, e.g. low cost, modern image, easy to use, best light etc.
WHAT?
“Concept description” is a way of communicating generated concepts in a one-pager. It includes a visualisation of the concept, a description of the unique selling proposition (USP), what the concept is, the target segment, possible road map, key market figures, business case, key risks and internal consequences.

WHY?
The concept description is an effective way of communicating the relevant elements that constitute and differentiate the concept, which is useful when talking to stakeholders about the concept.

HOW?
• The starting point is 3-5 different concepts generated from using e.g. the design matrix (tool 13)
• Visualise and describe each concept using the template shown on the opposite page
• Use the concept descriptions to get feedback from colleagues in other departments, users and other relevant stakeholders
• Make prototypes and experiments for each concept to test assumptions
• Detail the concepts and plan for possible user testing
• After testing/evaluating alternative concepts, the final concept is chosen and detailed, and the concept specification is updated (and will change its name to design specification)
The elevator pitch
– short, communicable and specific

Example of a concept description template

<table>
<thead>
<tr>
<th>Date:</th>
<th>Project:</th>
<th>Concept name:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To (target group and need), our (brand) is (concept) that (point of difference) Value proposition statement

<table>
<thead>
<tr>
<th>Target groups</th>
<th>Concept sketch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who?</td>
<td></td>
</tr>
<tr>
<td>Characteristics?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Concept details</th>
</tr>
</thead>
<tbody>
<tr>
<td>What does it contain?</td>
</tr>
<tr>
<td>How is it purchased?</td>
</tr>
<tr>
<td>How is it packaged?</td>
</tr>
<tr>
<td>What effect?</td>
</tr>
<tr>
<td>How is it used and handled?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>USPs and benefits for consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why would the user need/buy this product?</td>
</tr>
<tr>
<td>Positioning relative to competitors?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>USPs and benefits for customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why would retailers/shops/distributors give prime shelf space?</td>
</tr>
<tr>
<td>Why would others recommend this product?</td>
</tr>
<tr>
<td>Positioning relative to competitors?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Promotion, distribution and partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branding</td>
</tr>
<tr>
<td>Promotion</td>
</tr>
<tr>
<td>Distribution</td>
</tr>
<tr>
<td>Co-branding?</td>
</tr>
<tr>
<td>Partner collaboration to help differentiate or increase USPs?</td>
</tr>
<tr>
<td>Delivery collaboration?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Business impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.g. contribution, market share, revenues achieved in year x</td>
</tr>
<tr>
<td>Pricing</td>
</tr>
</tbody>
</table>

Tips

- Use the concept descriptions at meetings with the management and other stakeholders internally in the organisation
- Develop the descriptions even further for the concepts you choose to continue with
- Remember to operate in parallel on three concepts for a while before you choose the final concept
Fast prototyping

WHAT?
“Fast prototyping” is an approach for communicating ideas or work done in projects in order to get feedback quickly from experiments or relevant stakeholders before detailing the solution. Prototypes should be made early and frequently during the innovation process.

WHY?
To obtain an overview of the realistic possibilities before diving into the details. You will achieve:
• Faster and more accurate feedback – more often
• A more focused discussion of the solution with colleagues and users
• Improved and more possibilities for stakeholders to give you feedback
• Higher speed of learning by making more and simpler prototypes

HOW?
The following steps can be repeated several times during the innovation process:
• Identify where your uncertainty is and define key questions that the prototype must answer: E.g. does the design look good? Does it have the right functionality?
• Identify relevant people to evaluate the model (potential users, experienced colleagues, people from the supply chain and marketing etc.)
• Select an appropriate type of prototype
• Make the model (or have someone else do it for you)
• Get feedback/experiment and adjust accordingly
Communicate your ideas in the language of the user – and do it fast

Examples of fast prototypes

• Sketches
  – Hand sketches showing possible alternatives
  – Simple CAD sketches and drafts

• Mock-ups (low tech)
  – Simple models displaying the layout of a concept
  – Made out of easily accessible material: Lego, cardboard, wood/MDF, foam, plastic etc.

• CAD models

• 3D prints

• Scale models
  – Model of individual key components

• Functional models
  – E.g. models performing a sub-function
  – Allowing for simple testing and experiments

• User scenarios/storyboards
  – Scenarios displaying a potential use case

Tips

• Make many simple and quick prototypes frequently – twice as many as usual
• Do not invest too much time in detailing solutions before you get feedback
• Seek improvement suggestions – and be ready to spend time modifying after getting feedback
WHAT?
In “feedback sessions”, several types of stakeholders can provide feedback on your concepts. The sessions can be carried out several times during the project, but should start early enough for you to have time to act on the feedback.

WHY?
To learn about what users and experts really prefer in order to create a basis for improving the concepts. The objective of conducting the sessions is not to prove that the concepts are perfect, but to make you rethink and make improvements.

HOW?
• Define what the feedback session should help you clarify
  – Taste, size, texture, colour, shape etc.
  – Consider conducting both individual sessions and group sessions
• Present the concepts using relevant prototypes
• Let the persons providing feedback comment on each of the concepts
• Ask specific questions about their point of view and document
  – What do you like about the concept?
  – What could be improved?
  – What would you do differently?
  – Probability of buying the end product?
• Conclude on the session in the feedback capture grid and present it to the team
Get instant feedback and make your design even better

1. Conduct feedback sessions with different stakeholders

2. Write down conclusions in the feedback capture grid

Feedback capture grid

<table>
<thead>
<tr>
<th>Likes</th>
<th>Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questions</td>
<td>Ideas</td>
</tr>
</tbody>
</table>

Tips

- Do it often and do it early – so that you have time to act on the feedback
- Try to create a setting which invites suggestions for improvement and makes it easy for the feedback giver to communicate the suggestions
- In addition to feedback sessions, large-scale testing and internet surveys should also be conducted
**WHAT?**
“Visual planning” is a visually oriented planning method which is carried out by all the project participants by placing personal milestones (written on post-its) in the right sequence on a board or poster. It is an operational plan which covers the next 8 weeks of the main plan.

**WHY?**
Visual planning enhances commitment and collaboration of the plan. It helps break down large deliverables into manageable milestones and facilitates frequent joint follow-up.

**HOW?**
- **Build the plan**
  - Use the main project plan and questions from frontloading (tool 3) as a foundation for visual planning
  - Each team member (function) and the project manager have a horizontal track on the poster
  - Individually, team members write down milestones in a logical sequential flow on post-its and place them on the poster
  - One milestone per week at the minimum, but not so many that you lose the overview
- **Identify dependencies**
- **Together, the team goes through the entire plan from the top and checks all dependencies and adds milestones which may be missing**
  - Each “track owner” presents his/her track
- **If reaching key deliverables in time is a problem, the team discusses possible ways of accelerating the plan**
Carry out planning jointly in order to ensure joint commitment

**Planning session**

**Milestone examples**

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market insights database browsed</td>
<td>Important trends analysed and described</td>
<td>Trend map completed</td>
<td>Trend conclusions shared with the team</td>
</tr>
</tbody>
</table>

**Tips**

- Milestones must be SMART (Specific, Measureable, Accepted, Realistic and Time-framed)
- Consider using the top track for integrating events and steering group meetings and other key milestones
- If the project team has to work in split locations, you may use a high-quality camera to document the poster or use an electronic version of the poster
Project risk management

WHAT?
“Project risk management” is a tool used for prioritising project risks according to consequences and probability in order to take action as early as possible.

WHY?
Risk management performed upfront and throughout a project identifies risks and allows the team to define actions which will limit risks and, thus, improve the project result.

HOW?
The risk assessment should be performed at project start-up and at re-planning sessions. Since the risk picture will always change throughout a project, a brief discussion should be conducted on a weekly basis.

• What are the risks? Individual brainstorming
• In the team: Discuss and detail the risks and prioritise them in the risk matrix (the right-hand side of the visual planning poster)
  – What are the consequences?
  – What is the probability?
• Select key risks that must be addressed now
• Decide on necessary actions for selected risks
  – Actions that can lower the probability (mitigating actions) and actions that can lower the consequence (contingency plan)
• Insert the defined actions as milestones in the plan (if large) or in the project’s action list (if minor) in the bottom right-hand corner of the visual planning poster
Be “professional pessimists”

**Risk matrix**

<table>
<thead>
<tr>
<th>Probability</th>
<th>Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low 1</td>
<td>Low 1</td>
</tr>
<tr>
<td>High 10</td>
<td>High 10</td>
</tr>
</tbody>
</table>

**Risk – example:**
Unable to produce the frame in titanium

**The rating may look as follows:**
*Probability: High
Consequences: High*

**Actions**

<table>
<thead>
<tr>
<th>Mitigating action</th>
<th>Who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make simple prototypes to test the possibility</td>
<td>Joe</td>
<td>22/5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contingency plan</th>
<th>Who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare list of five alternative materials</td>
<td>Anna</td>
<td>4/6</td>
</tr>
</tbody>
</table>

**Tips**

- Identifying risks as a “team thing”, i.e. doing it together in the team, will significantly increase your insights and your ability to see potential “dangers”
- It is the responsibility of the team to keep the risk matrix updated at all times and to ensure that all key risks are addressed with appropriate actions
WHAT?
“Project kickoff” is a meeting or a workshop at which the project team agrees on the project objectives and builds the visual plan together. Project kickoff takes place in connection with start-up of a new project or when starting a new phase.

WHY?
The kickoff helps get the project members to share the same dream, and it clarifies expectations among project members. It also gives a better overview of the upcoming milestones and allocation of responsibilities.

HOW?
- Review the project description and discuss solution space (tool 2)
- Agree on the project objectives (tool 1) and fill in the left side of the poster
- Review the project main plan (with gates)
- Perform a frontloading session (tool 3)
- Build the 8-week milestone plan (tool 17)
- Identify the key stakeholders (internal and external) and prioritise them on the matrix
  - Define actions of how to involve the most important stakeholders
- Brainstorm and evaluate possible project risks (tool 18)
  - Discuss possible actions for handling the risks with high probability and consequence
- Wrap-up: Conclude on actions and process/structure for weekly status meetings
Kick-start your projects in the right way

Flow of the kickoff meeting

1. Review project description and discuss solution space
2. Agree on the project objectives and fill in the left side of poster
3. Frontload key questions and map stakeholders
4. Make a visual milestone plan for the next 8 weeks
5. Evaluate risks and agree on actions
6. Acid test the plan for realism and conclude next steps

Tips

- Make sure that the project description and the main plan have been completed and verified by the project owner in advance
- Prior to the kickoff, get the team members on board individually
  - Review the project description
  - Ask them to think of frontloading questions and own contribution
- Prepare an agenda and meeting objectives in advance
Weekly status

WHAT?
The “weekly status meeting” is conducted every week at the same time where the project team meets to discuss the visual plan. The focus of the meeting is on the process and the progress of the project, not on technical issues.

WHY?
Because this meeting is a fast and effective way of getting a status overview of the project. It involves all project members and helps create joint commitment.

HOW?
- Determine a fixed weekly day and time for the meetings (weekly takt)
- The duration of the meeting should be no more than 1 hour to start with – the goal is 30 minutes or less
- The focus should be on the process/progress and not on technical issues
- Use the following agenda (also illustrated in the figure on the next page)
  1. Follow up on actions from the last meeting
  2. Participants check off completed milestones, including brief discussion on delayed milestones, and check if the next two weeks are OK
  3. Discuss changes in the stakeholder picture – are we in contact with the important ones?
  4. Review the risk picture and discuss any open issues
  5. Define actions/person(s) responsible regarding “bad” KPIs, risks and other issues to be addressed – check if everyone is clear about what to do the next couple of weeks
Conduct fast weekly status meetings

Use the visual planning poster as the meeting agenda

Tips

- Stand around the poster during the entire session
- If detailed issues must be solved, define an action for someone to do after the meeting (and report back at the next status meeting)
- Consider documenting the poster by taking a high-quality picture of the poster and send it to all participants
Want to know more?

We hope that this booklet will inspire you to challenge the way you innovate. Please:

Try out some of it with your teams right away, rather than wait for the perfect occasion. Use the tools to bridge some of the key innovation dilemmas:

• Creativity vs efficiency
• Strategic direction vs everyday activities
• Personal knowledge vs team knowledge

Use the 20 innovation tools to strengthen the common “innovation language” in your organisation.

Applying an innovation process – the right way – will help you improve:

• Project speed
• Concept/solution quality
• Individual employee satisfaction
• Team spirit

If this inspires you, or you just want to discuss innovation challenges, please contact us.

TRY THE LEAN INNOVATION TOOLS APP

This booklet is also available as an interactive “easy-to-use” iPhone app. It includes work templates, posters and guidelines for print and free download.