

How Lean *helps* you in...

Design *for* Customer



Whether you have to design a pen, improve the experience in an Emergency department, build a house, or create a new strategy for your company...
You need a solution that fulfills the challenge.

D4C

creators

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Lean
Global
Network

How Lean helps you in...

Name the specific customer or business need you're addressing, and see how your current position compares to what's already out there.

Turn your strongest ideas into more than one Minimum Viable Product (MVP), built to be tried with real customers.

Test each prototype where the work actually happens, and capture the results.

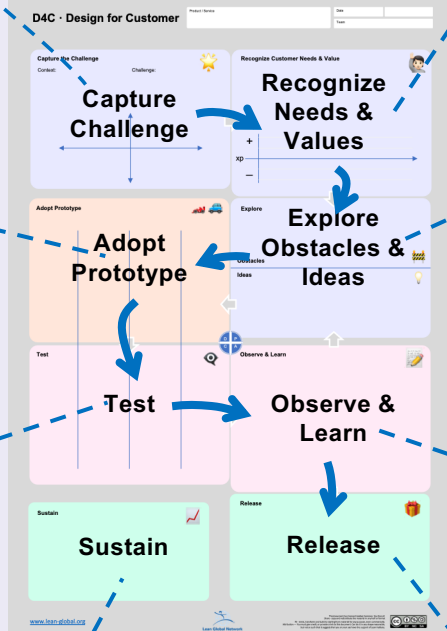
Build a simple rhythm to identify opportunities for continuous improvement of the product or service.

Map the customer's journey to find where the real pains and gains sit, and capture the attributes the solution needs to satisfy.

Find the root obstacles causing each pain, then brainstorm ideas that remove them or create more of the gain customers want.

Review the test results, turning successes into conclusions and failures into learnings, then decide whether to pivot, persevere or adjust.

Hand the finished solution, its documentation and its day-to-day ownership to the team who will run it.



Design for Customer

How this guide works

This guide is a structured approach that helps team to develop or build something new that addresses a customer challenge.

The team should include at least one member with moderate experience in lean thinking and practice, who is familiar with many of the tools suggested in the guide.

This guide gives you everything you need to work through D4C step by step; the thinking behind each stage, the prompts to ask, and the tools to use. The steps are designed to be followed in order, since each one builds on the output of the last.

The tool menu on each page is tiered by effort and rigour, not by importance, every tier can produce a good outcome:

Essential	Nice to have	Deep
basic tools for a basic understanding,	The nice to have tools for a nice to have understanding,	more complex tools for a deeper understanding.
Mandatory essential tool		

You are not obliged to work down every row. Pick the smallest set of tools in a tier that lets the team move forward with confidence, then go deeper only where the team is genuinely stuck.

The guide incorporates a worked example, broken down into each of the steps which shows how the tools can be applied:

In the blue border there are helpful tips about what to work through and record for each of the steps.

Describe the **abc** And why is important

Based on collected data the **123** should be calculated. Describe all options in a table

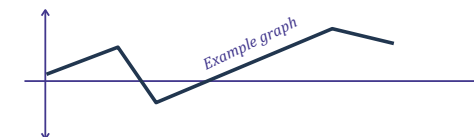
STEP

abc:

123:

Example text

A Example table
B Example table
C Example table



Example itself is on the white part.

With all of the background information available, a straightforward D4C could be completed within one day, others may require longer.

00 Create a Team

To get started, you will need to create the team, which includes the customer or the customer voice. Find a space that fosters collaboration and schedule enough time together to work through each of the steps with intention.

01 Capture / Define “the Challenge”

Define the challenge that you can address by designing a new product or service. A business or customer need that has not yet been fulfilled, and has to be resolved.

This step is focussed on clearly describing the customer with the challenge or business need. It is helpful to also agree if there are customers who are out of scope. Take care at this point, in some situations customers are different from the users of your potential solution. Explore this with your team and also consider identifying who could partner with you in this work.

Capture the opportunity in terms of customer position versus currently available solutions, including those of competitors. This is an 'As-Is' or current state analysis to understand what others are doing that is relevant.

Essential	Nice to have	Deep
SQDCM	MIND MAPPING	SWOT
COMPETITOR ANALYSIS	VOICE OF CUSTOMER	BUSINESS MODEL CANVAS
BENCHMARKING	PRODUCT MAP	PORTER MATRIX
CUSTOMER MARKET POSITIONING MAP		STRATEGY MAP - HOSHIN KANRI

↑
This is the recommended essential output.

As a summary, include:

The **context** on why this is important for the customer, and the organization.

The **challenge** is based on the specific targets to be accomplished.

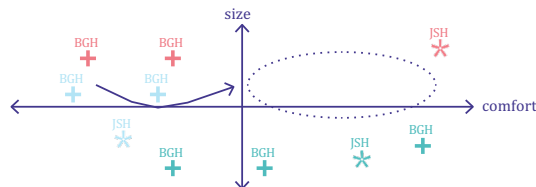
CAPTURE THE CHALLENGE

Context:

Old hospital (Tier 2), where there is an ED (400pt/day), with a WR that receives a lot of complaints from PT.

Challenge:

- Geel safe from other pt hazards
- Clean & Comfortable
- Right info on time
- No investment (no surprises for pt)



A simple graph with the actual position vs competitors, and the desired target is helpful.

02 Recognize Customer needs & Values

This step focuses on understanding the desired customer experience in more detail, with a focus on what the customers need and what they value.

A basic customer journey map, which describes the key points in the customer experience should be described, noting pain points and opportunity for more value (gains) along the journey.

Exploring with the customer the attributes they would like and those they prioritise (for example: fast, cheap, easy to use,) is helpful.

Essential	Nice to have	Deep
STP ANALYSIS	VOC	QUESTIONNAIRE, FOCUS GROUP, SURVEY
CUSTOMER (INTERNAL/EXTERNAL) SEGMENTATION	SCORE TOOLS	TECH - MARKET MATRIX
		PERSONA EXERCISE
BASIC CUSTOMER JOURNEY MAP	FULL CUSTOMER JOURNEY MAP	KANO ANALYSIS
PAINS AND GAINS	JOB/PAINS/GAINS	QFD

As a summary we suggest at least, to draw:

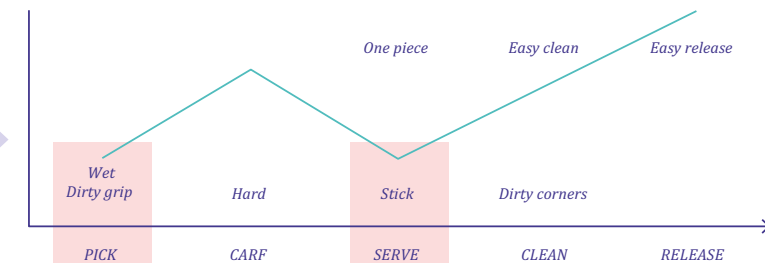
A basic **Customer Journey Map** where with a punctuation (5-very good, 1-very bad) is drawn the customer journey **through all steps of the journey**.

Gains and pains should be captured.

Internal customers with their needs, values and constraints should be taken in account.

Recognize Customer Needs & Values

MARKETING: (7) Before christmas
FINANCE: (8) less than 100 k fi
ENGINEERING: (3) less than 80 h
SALES: (4) less than 20 € / unit



Select where to focus

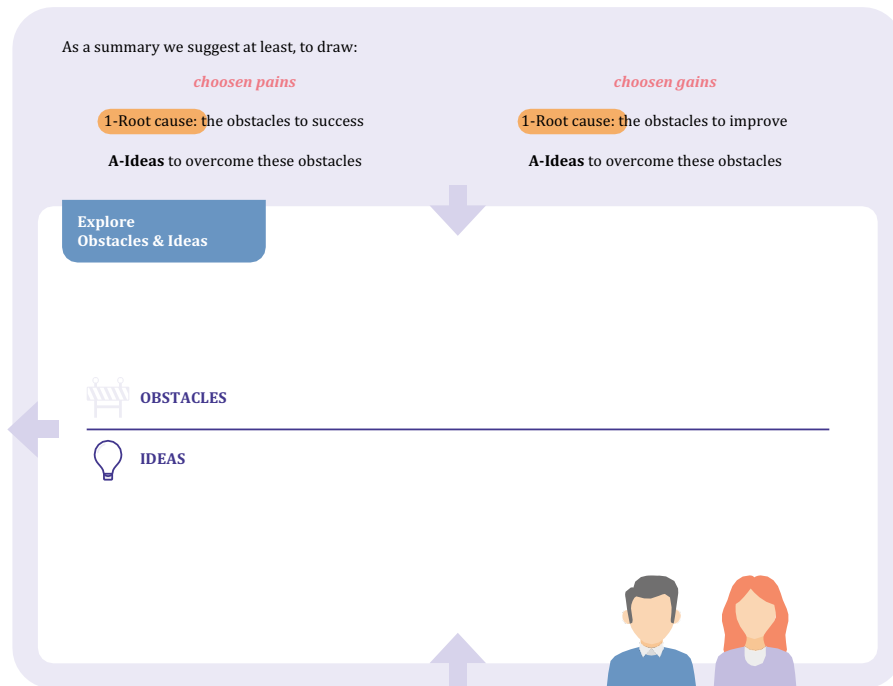
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03 Explore Obstacles & Ideas

This step focuses on documenting the root obstacles that are causing the customer's pain, and generating ideas that may deliver the customer greater value. Remember to think as well in the internal customers who might have obstacles, like: budget constraints, time limitations.

With the customer and the team, generate many ideas to test which might best address the pain points and deliver the gains. It is also helpful to sketch the ideas or possible solutions to support the team to align in preparation for next step.

Essential	Nice to have		Deep
BRAINSTORMING	FULL CUSTOMER JOURNEY MAP	HOW-HOW	FMEA
1-2-4-ALL	SCORE TOOLS	CONCEPT PAPER	SIPOC
	6 HATS	SCAMPER	TRIZ
	ROUND ROBIN	ECRS	SERVICE BLUE PRINT
5 WHY, 5W+H	ISHIKAWA	EVA ANALYSIS	
SKETCH THE IDEA	VALUE PROPOSITION		



Have more than just one proposal to be tested. As not only one hypothesis (idea) pro/cons needs to be tested.

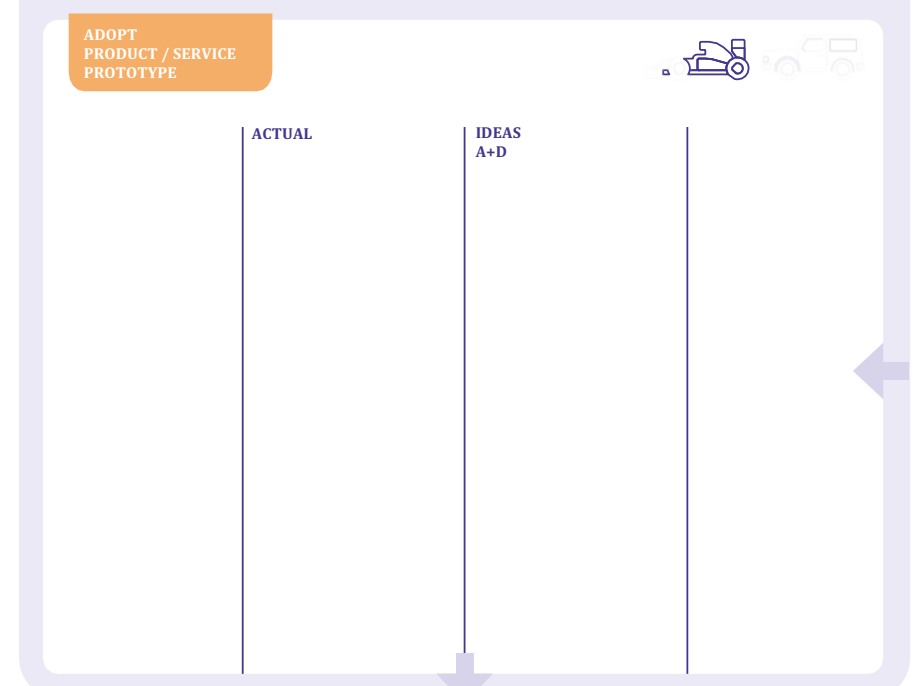
04 Adopt Prototype

This step focuses on creating several prototypes that reflect the ideas developed by the team.. Use some of these ideas for each prototype. The prototype is a Minimum Viable product (MVP).

Essential	Nice to have	Deep
	RAPID PROTOTYPING	RISK MANAGEMENT
	STORYBOARD	PRE-SERIAL
MOCK-UP	WIRE FRAMING	VSM
PROs & CONs	CUSTOMER SEGMENTATION	EVA

As a summary we suggest at least, to draw:

An sketch with main characteristics of the Actual product/service, and for each of the MVP prototypes. Sooner is tested, sooner knowledge will appear.



05 Test

This step focuses on testing the different prototypes with the customer. This should include exploring the pros and cons of each of the prototypes and checking on how the performance of the prototype addresses the customer's challenge. Wherever possible the test of the prototypes should be done in gemba and the voice of the customer should be captured.

Essential	Nice-to-have	Deep
AB TESTING	EXPERT FEEDBACK	FMEA
GEMBA ANALYSIS	SPAGHETTI CHART	TEST UNTIL BREAK
FIELD TEST	HAPPY PATH/FLOW	TRADEOFF CURVES
PILOT RUN	STATISTICAL ANALYSIS	PPAP
PERFORMANCE MEASURE		

Document all the features that needs to be tested, along with the results, including VoC. Use facts and data wherever possible, (graphs, drawings, customer journey map).

TEST

ACTUAL

IDEAS
A+D

06 Observe

This step focuses on reviewing the results to verify and learn. For those features of a prototype that work for the customer, carry these forward. For those features that do not work, adjust and re-test. It might be necessary to create a new prototype that draws together the best features from your earlier versions. During this process, the customer needs can be further refined - these should be incorporated into this step.

Essential	Nice to have	Deep
DESIGN REVIEW	ONE POINT LESSON	A3
REPORT	LEARNING LESSON	SIPOC
	PAIRED COMPARISON	SWOT
	STANDARD DESIGN (CHECK LIST)	VSM
	TARGET COST	

As a summary we suggest at least, to capture, for each test:
Every failure should be translated to a learning.
Every success should be translated as a conclusion.

Adopt the Pivot or Persevere policy at the end of every cycle.
So these learnings and conclusions, can lead to new ideas at step 3.

OBSERVE

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07 Release

In this step, the product or service is 'released'. Supporting documentation, (drawings, process maps, test results and product 'how to use' guide) needs to be developed and included in the handover.

Essential	Nice to have
PRODUCT CHARTER SIMPLE	STANDARDIZE
PRODUCT LIFECYCLE	DETAILED DRAWINGS & PROCESS MAP
	SO CHART

Include a summary of the critical results that have led to the final product/service.
Include the different data and facts that underpin the decision about the final product/service.

HANDOVER



+ Sustain

The final step is to ensure that there is a simple rhythm to identify opportunities for continuous improvement of the product or service.

Describe the way in which the performance of the solution will be monitored and improved over time.

SUSTAIN



Template

Lean Design for customer		PRODUCT / SERVICE	DATE:
			TEAM:
CAPTURE THE CHALLENGE 	RECOGNIZE CUSTOMER NEEDS & VALUE 		
APPLY PROTOTYPE 	OBSTACLES IDEAS EXPLORE		
TEST 	OBSERVE, VERIFY & LEARN 		
SUSTAIN 	RELEASE 		

Fullfilled Templates with examples

Lean Design for customer		PRODUCT / SERVICE	DATE:
			TEAM:
CAPTURE THE CHALLENGE 	RECOGNIZE CUSTOMER NEEDS & VALUE 		
APPLY PROTOTYPE 	OBSTACLES IDEAS EXPLORE		
TEST 	OBSERVE, VERIFY & LEARN 		
SUSTAIN 	RELEASE 		



*Find/ Understanding
Problems:
Observation*



*Find/ Understanding
Problems:
VSM*



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