



BUSINESS MODEL DEVELOPMENT TOOLKIT FOR AAL PROJECTS



Created by VTT in the framework of the AAL2Business Support Action



COPYRIGHT

Report titled “Business Model Development Toolkit for AAL Projects”

Report for Ambient Assisted Living Association, Brussels
Date July 2017

Author(s) Arto Wallin and Pasi Pussinen,
VTT Technical Research Centre of Finland LTD

Responsible
Administrator: AAL Association Brussels
Project name: AAL2Business

Publisher:
Ambient Assisted Living Association
Rue de Luxembourg 3
B-1000 Brussels, Belgium
Phone +32 (0)2 219 92 25
Email: info@aal-europe.eu

About Ambient Assisted Living Association:

The Ambient Assisted Living Association (AALA) organizes the Active and Assisted Living Programme (AAL Programme). The AAL programme aims at enhancing the quality of life of older people and strengthening the industrial base in Europe through the use of Information and Communication Technologies (ICT). Therefore, the AAL Programme is an activity that operates in the field of services and actions that enable active ageing among the population.

The programme is financed by the European Commission and the 14 countries financed by the European Commission and some of the EU Member States.

See more at: <http://www.aal-europe.eu/>

The information and views set out in this report are those of the author(s) and do not necessarily reflect the official opinion of the AALA. The AALA does not guarantee the accuracy of the data included in this study. Neither the AALA nor any person acting on the AALA's behalf may be held responsible for the use which may be made of the information contained therein.

All rights reserved by AALA.
© 2017 Ambient Assisted Living Association, Brussels



INDEX

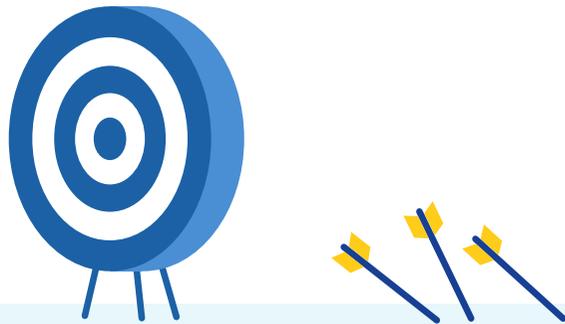
BUSINESS DEVELOPMENT IN AAL PROJECTS - Why, what and how?	p. 4
DESIGN - How to design business models and value propositions.....	p. 11
TESTING - How to validate business models in AAL projects	p. 18
LEARNING - How to analyse what is learned in AAL projects.....	p. 24
CONCLUSIONS.....	p. 27

BUSINESS DEVELOPMENT IN AAL PROJECTS - Why, what and how?

WHY AAL PROJECTS NEED BUSINESS DEVELOPMENT

The AAL projects are making advancements in introducing services and products based on the latest technologies into the silver market. However, some projects have failed to deliver commercial results

into the marketplace, but some have succeeded. Below we address some of the differences between those projects that have failed to commercialize their product or service and those that have succeeded.



WHY COMMERCIALIZATION FAILS

- No real passion (partners are not seriously trying to get it to work in commercial terms)
- Wrong partner leading business/commercialization activities (commitment is important, the right organization for the role is needed)
- Developing a “stand-alone business model” (lack of understanding links between business models and the dynamic nature of the marketplace)
- Business models are not sustainable (prices are too high or costs are too high)
- Not understanding institutional and market forces (regulatory issues or policy changes in countries, the speed of the technological advancement)
- No real need for the product or service in the marketplace (confusing end-user needs and customer needs)



WHY COMMERCIALIZATION SUCCEEDS

- At least one talented person and organization is very passionate about the business opportunity.
- The project is aligned with the company’s goals and strategy.
- There is a proven demand in the marketplace.
- The project is able to design attractive value propositions for key stakeholders.
- The product is commercially viable.
 - Non-profit needs to cover costs
 - For-profit needs to make a profit

DIFFERENT ROLES OF BUSINESS DEVELOPMENT IN AN AAL PROJECT

Every project should define the roles for each partner at the beginning of the project. This means that every partner should have clear roles and responsibilities regarding business model development in the

project. This will help show who are in charge of business development in the project. As an example, these roles include:



Research partner

Supports other organizations (e.g. conducts pilot studies)



Development partner

Develops (partial) solutions for key commercial partners



Market research, business consultants, etc.

Supports other organizations (e.g. conducts pilot studies)



Key commercial partner

- To succeed, the project needs to identify an organization that is highly motivated and capable of commercialising the developed solution.
- They develop the business model for themselves.
- They cannot outsource business development, they have to lead it!
- If there are several commercial partners in one project, each of them has to have a clear business case.
- These business cases can be interlinked in some way, or they can be independent business cases that do not rely on project partners.



End-user organization

- The users' voice in a project: key source of customer/end-user feedback for the development (co-design is important!)
- Potential procurer of AAL solution and "launching customer" in optimal case for commercial partners
- Can/should be developing their own business as well



- Each of these organizations has their own business model (or several).
- The project is only a temporary form for development → DON'T DEVELOP A BUSINESS MODEL FOR A PROJECT!

DIFFERENT GOALS OF BUSINESS DEVELOPMENT - BM IMPROVEMENT VS. INNOVATION

- Each of the project partners has one (or several) business models on which they run their current business.
- Business models get outdated, and they need to be incrementally improved or radically changed (innovation) in order to stay in the game.
- Your VISION should be guiding the business development in the project; it defines whether you are improving your current business or searching for a new business (model).

BUSINESS MODEL IMPROVEMENT

Minor improvement of the current business model

- 98% of top companies regularly modify their business models. ¹

AAL projects:

- New solutions developed in AAL projects require that an existing business model is modified to support them (e.g. key resources & activities).
- This usually means that existing infrastructure from a key commercial partner is used.

BUSINESS MODEL INNOVATION

When incremental improvements to existing business models are not enough, you need to take a leap and create a new business model. A new business model means that it differs distinctly from the business models in the market (thus innovation).

EXISTING ORGANIZATIONS

Major change in the business model of an existing organization

AAL projects:

- A new AAL solution does not fit with the key commercial partner's existing business model.
- The company does not copy a business model but innovates (through design and testing) a new business model to execute a business.
- Some elements from the company's current business model may be used, but many elements need to be changed.

START-UPS & SPIN-OFFS

New company executing a new business model

AAL projects:

- A new business opportunity is discovered in a project, and none of the partners is interested in commercialization (via the current organization).
- A partner's purpose may be to spin-off a new company to serve a market need.
- Start-ups are a hot trend, but making a start-up fly is a really rocky path.

ROLES



1) How to design a Winning Business Model Harvard Business Review 2011.

INNOVATION SPRINTS TO SPEED UP BUSINESS DEVELOPMENT

Traditionally R&D joint projects are too slow and inflexible to be competitive with faster market players. The majority of projects start business development too late and work in long iterations. ➔ They often realize too late that the solution does not have commercial potential. **Innovation sprint helps AAL projects to increase the speed of business development and to re-focus resources on things that matter.**

Project proposal

- Project vision (may or may not be the same as the business vision)
- Initial BMs
- Initial roles & responsibilities

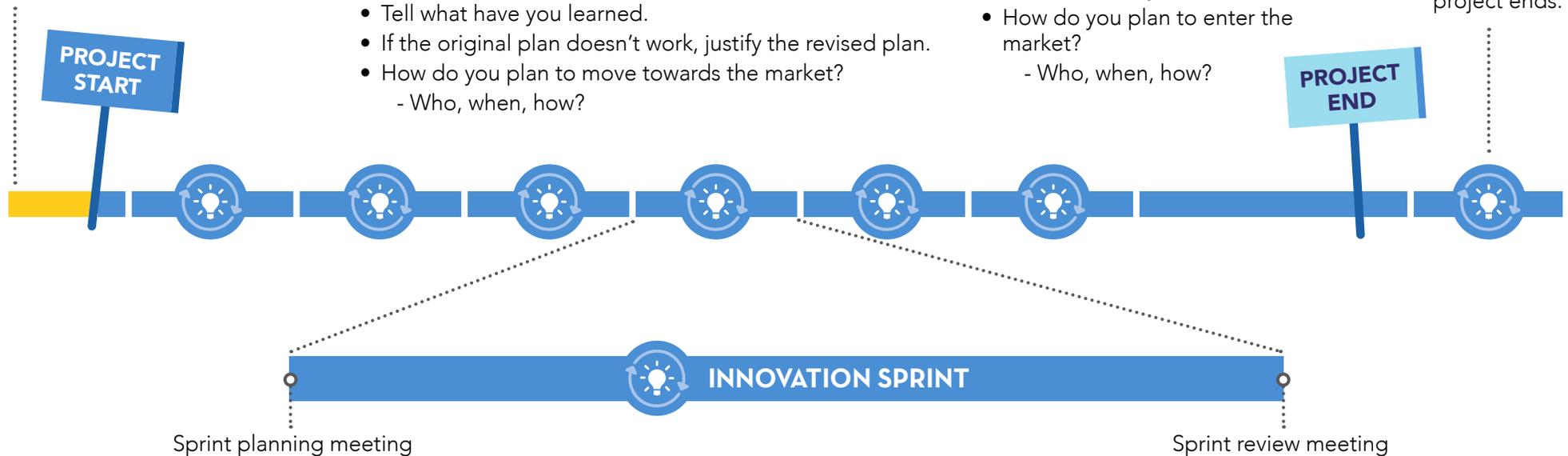
PROJECT MID-TERM REVIEW

- Show the iterative process: what have you tested (validated, invalidated assumptions)?
- Tell what have you learned.
- If the original plan doesn't work, justify the revised plan.
- How do you plan to move towards the market?
 - Who, when, how?

PROJECT FINAL REVIEW

- Show what failed, what worked.
- Tell what have you learned.
- How do you plan to enter the market?
 - Who, when, how?

The BM development continues after the project ends.



What is innovation sprint?

- Time-boxed business/product development cycle (max. 3 months) pushing for highly iterative development
- Helps projects learn faster if a business vision is viable or not and to continuously adapt and adjust it before it's too late
- Forces the business case owner to make management decisions that guide product development
- Includes phases of design, testing (building), and learning
- A sprint kick-off meeting starts the whole process (1st sprint), then each sprint has planning and review meetings.



HOW TO RUN INNOVATION SPRINTS

Each sprint has three main phases (design, testing and learning) and two important meetings (planning and review).

- **DESIGN** includes both the design of new business models (especially during the 1st sprint) and updates of business models based on the feedback from previous sprints.

- **TESTING** contains actions needed to plan and implement 1-n experiments (tests) to validate the business model and value propositions.
- **LEARNING** is the final phase of sprint that focuses on analysing the test results and interpreting what their implications are for the selected business model.

SPRINT PLANNING MEETING

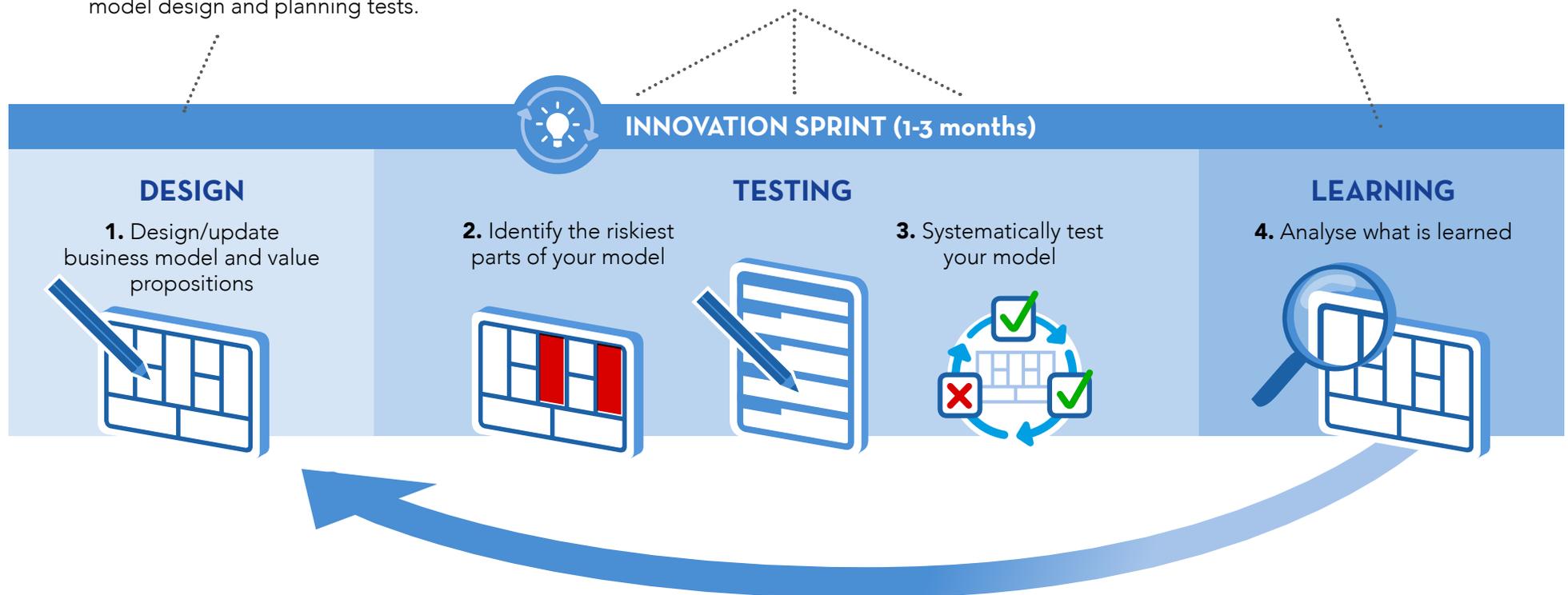
Innovation sprints start with a planning meeting, which may include tasks related to business model design and planning tests.

SPRINT STAND-UP MEETINGS

Regular (very) short meetings to briefly check progress

SPRINT REVIEW MEETING

Final meeting for sprint to review findings and to start preparation for the new sprint (see page 26)





PRACTICAL GUIDELINES FOR STARTING INNOVATION SPRINTS



1 Organize innovation sprint kick-off

Official start of the project's business development (Note! Do not include administrative issues on the agenda, have a separate meeting for those.)

3 Start prototyping business models and value propositions (~2 weeks)

The goal is to find a "starting model" (i.e. the model you test during the 1st innovation sprint). See slides 12–20.

4 Organize 1st sprint planning meeting

The goal is to decide on actions to be conducted during the innovation sprint and to allocate resources to those.

Start the execution of 1st sprint

2 Establish core team for innovation sprints

Small and multi-disciplinary team, which is committed to business development

- Sprint master = Key commercial partner who leads the development
- Business/marketing expert(s) – e.g. market researchers/consultants
- Developer(s) – e.g. development partners whose main role is to tell what is possible to implement
- Users'/customers' voice – e.g. end-user organization
- Designer(s) – e.g. ux experts, important for designing prototypes and tests

EXAMPLE AGENDA FOR SPRINT KICK-OFF

Who: At least one key decision maker from each partner

How (an example agenda):

- What are each partner's goals/ambitions? What is their role in the project? What are the implications/responsibilities?
- The current business & market hypotheses that the project plan is based on:
 - What facts are known that you can trust?

- What weaknesses and constraints does the plan have?
- What invalidated guesses are there?
- What is the high-level strategy to start validating a hypothesis? Who will do it?
- Who will be responsible?

EXAMPLE AGENDA FOR SPRINT PLANNING MEETING

Who: Core team + additional stakeholder (e.g. persons needed to conduct tests)

Agenda:

1. Briefly summarize the business vision and current strategy to reach it (5min) – sprint master
2. Present the business model and current assumptions (5 min) – sprint master
3. Review the "backlog" of tests and introduce new tests that are needed to validate the model (3min/test)
4. If new tests have not been designed before the meeting, you need to design those during the meeting.
5. Prioritize tests
6. Vote on which tests are the most critical.
7. Decide which tests to conduct (based on available resources, needed time and criticality)
8. Wrap-up – sprint master

DESIGN

**How to design business
models and value propositions**

OVERVIEW OF BUSINESS MODEL AND VALUE PROPOSITION DESIGN

We will present four different tools to be used for the business development of an AAL project. They are the Business Model Canvas (BMC), the Value Proposition Canvas (VPC) and the test cards and learning cards. These tools are widely used in business development and are easy to learn and use.

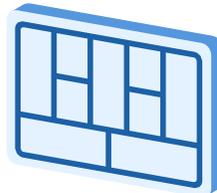
BUSINESS MODEL CANVAS (BM CANVAS)

The business model canvas is a framework that helps people describe, analyse, design and develop business models more systematically.

- Although there are also other canvasses available, the BM canvas is the most widespread and also widely used within AAL projects.

The Lean canvas introduced by Ash Maurya, the author of "Running Lean", is another very well-known canvas that builds on the BM canvas, but some building blocks are different (unfair advantage, key metrics) and partly overlap with the VP canvas (problem and solution) (see why he invented a new canvas): <https://blog.leanstack.com/why-lean-canvas-vs-business-model-canvas-af62c0f250f0>

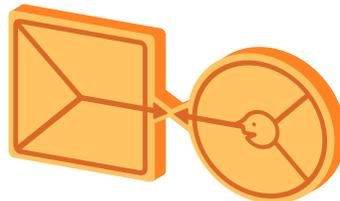
- You can find a lot of information about value proposition design:
 - Canvas (downloadable): <https://strategyzer.com/canvas/business-model-canvas>
 - Video: <https://www.youtube.com/watch?v=QoAOzMTLP5s>
 - BOOK: Osterwalder & Pigneur (2010) Business Model Generation. Wiley



VALUE PROPOSITION CANVAS (VP CANVAS)

The Value Proposition canvas has two sides that focus on two key building blocks of the business model canvas (i.e. value propositions and customer segments).

- The Customer Profile is the perspective of a single customer segment. Put the "customer hat" on when thinking about this.
- The Value Proposition map is the side designed by the organization developing their business model.



- A VP canvas can test if your value propositions match with the expected gains and pains of the specific customer segment.
- You can find a lot of information about value proposition design:
 - VP CANVAS (downloadable): <https://strategyzer.com/canvas/value-proposition-canvas>
 - VIDEO: <https://www.youtube.com/watch?v=ReM1uqmVfP0>
 - BOOK: Osterwalder, Pigneur, Bernarda and Smith (2014) Value Proposition Design. Wiley

TESTING & VALIDATING

Test and learning cards enable you to test critical hypotheses and assumptions regarding your potential business model.

- **Test card** can be used to design and present experiments that will show if critical components of your business model actually work. See video: <https://www.youtube.com/watch?v=cW46ySJmLD8>
- **Learning card** helps you analyse experiments and learn from those. See video: <https://www.youtube.com/watch?v=U1FIRmg7j-o>
- **Progress board** helps you keep track of your business model validation process and decide on subsequent actions. See slides for more information: https://www.slideshare.net/Strategyzer/progress-board?next_slideshow=1



TIPS ON HOW TO USE BM CANVAS

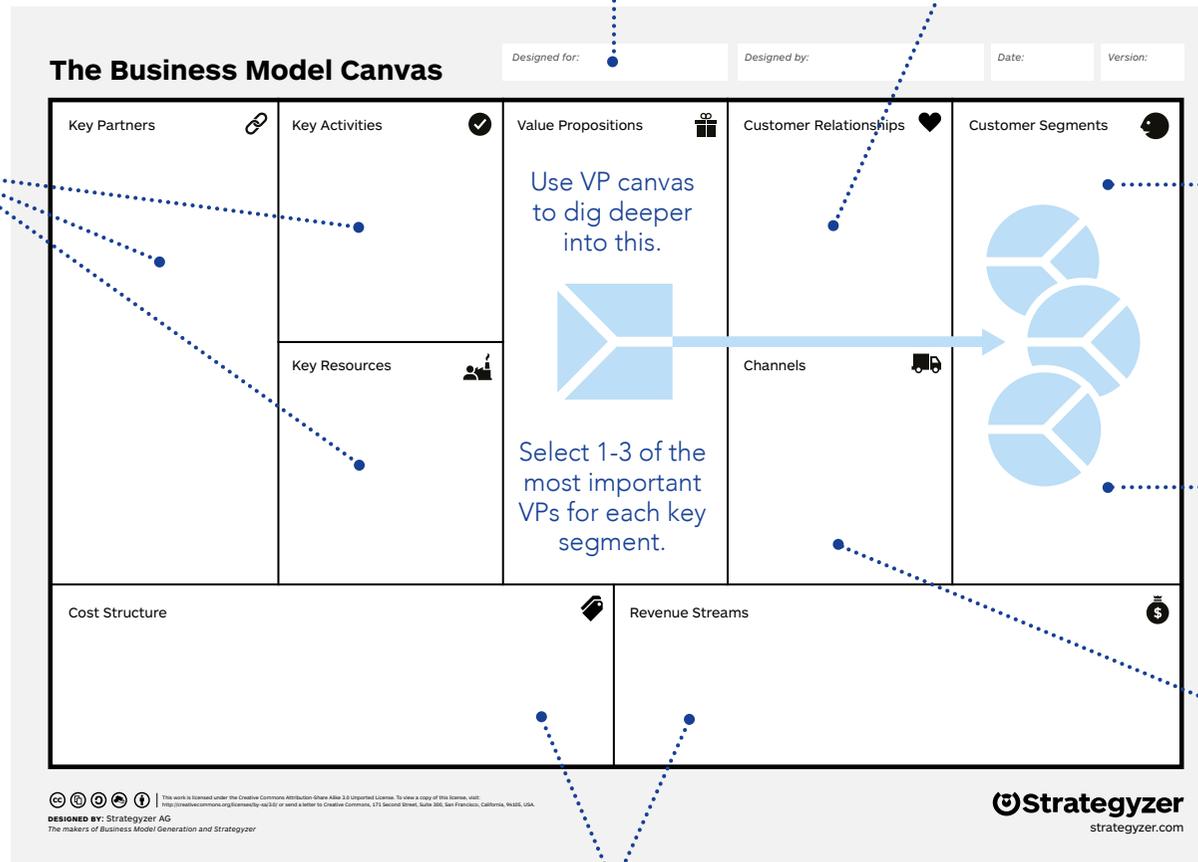
This is the infrastructure you need to execute your business successfully (i.e. activities, resources and partners you need after the AAL project).

Note! In order to evaluate the investment you need for setting up the business, you may additionally include infrastructure that you need to build your business (AAL project phase +?).

Tip: Clearly indicate which infrastructure is for executing and for developing business (e.g. use different colours).

! Nail the perspective – who is this business model for?

How will you interact with the paying customer – how will you approach and communicate with the paying customer, how much will be automated through digital channels, what kind of value and risk-sharing relationship will you have?



This is the profit zone! In the end, it defines the profitability of the business.

TIPS!

1. Define the purpose of your work with canvas!

- a) explore new business models ➡ sketch quick prototypes on a napkin or by using the BM canvas. Limit the time, instead of going to details, focus on creating several prototypes
- b) analyse business models ➡ use larger canvas, give more time to discuss and analyse.
- c) make strategic choices ➡ present your assumptions with the help of canvas, discuss and make choices.

2. How to use notes

- a) Use electro-static or post-it notes (can be moved)
- b) Write only a few words per note. The notes are your backup for storytelling
- c) Use different colours (or e.g. numbers) to make canvas more explicit. For instance, use different colours for different segments.

TIPS ON HOW TO USE CUSTOMER PROFILE

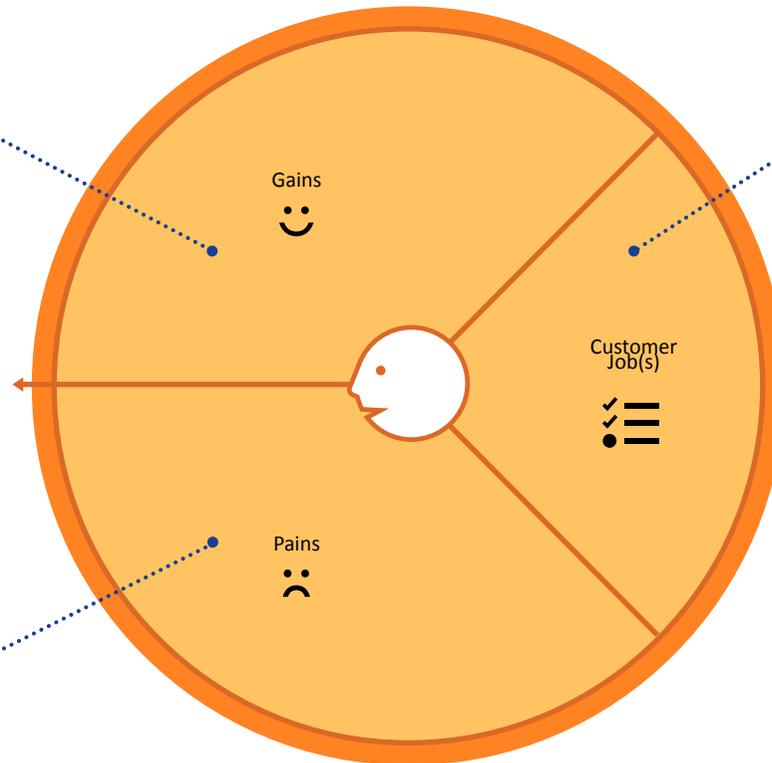
Gains

What outcomes and benefits does the customer find positive – go into detail

- Savings that make them happy (time, money)
- Required, expected and unexpected levels of quality (e.g. super customer service)
- Positive social consequences (e.g. connecting with an old friend)
- Positive emotions
- What makes them feel successful (e.g. learning new skills)
- Making life/work easier

Pains that the customer has related to their job:

- Undesired outcomes (e.g.):
 - Non-functioning product/service
 - Violation of privacy
 - Losing money
- Obstacles (e.g.)
 - Unable to perform certain task due to...
- Emotional pains (E.g.):
 - Fear of failing or losing a job
 - Anxiety regarding technology
 - Discomfort due to cultural differences



Customer jobs

Jobs describe the things your customers are trying to get done in their work or in their lives. A job can be a task they are trying to perform, the problem they are trying to solve or a need they are trying to satisfy. (See [video](#) or [read more](#).)

Examples:

- Individual customers – elderly person
- Feel secure at home
 - Be socially active by meeting friends or relatives
 - Feel useful to society

Relative of elderly people:

- Take care of my parent who lives on her own
- Relax with my own recreational hobbies

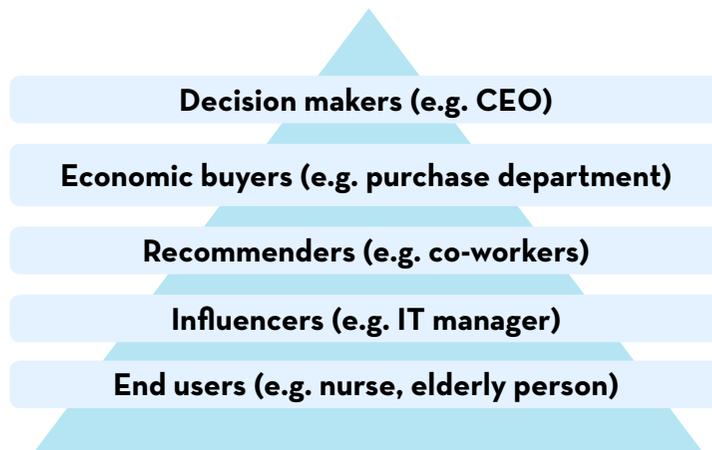
Manager of homecare institution:

- Advance my career (how?)
- Meet key performance indicators (e.g. cost effectiveness)

TIPS ON HOW TO USE CUSTOMER PROFILE

- 1. Identify main customer segments and select the most important segments**
- 2. Identify sub-segments (if any) and choose the most relevant ones for profiling**
 - If your customer segment is an organization (or e.g. family), you will find many different sub-segments within the organization.
 - There are different customer roles, and each customer segment may look different (i.e. you need a separate customer profile for them).
 - Focus on key segments i.e.
 - Who plays a key role as a buyer
 - Who plays a key role as a user

CUSTOMER ROLES¹



3. Draw initial customer profile

- Start from the job-to-be-done, and move to pains and gains
- Design value map (see page x)
- Check if there is a fit between customer profile and if the segment makes sense at all, if not, reiterate until you find a segment you believe in.

4. Observe the life/work of the selected customer to turn your initial guesses into facts

- What jobs do they need/want/have to do ➡ jobs-to-be-done
- Ask why they do these things and how they feel while doing a job (is it irritating, relaxing, empowering,...) ➡ gains and pains

5. Prioritize the jobs, pains and gains based on your observations

- Note! In an optimal case, you would start observing and, e.g. interviewing customers right away, but in a real project setting you often start sketching value propositions with some initial assumptions/facts that you already know.

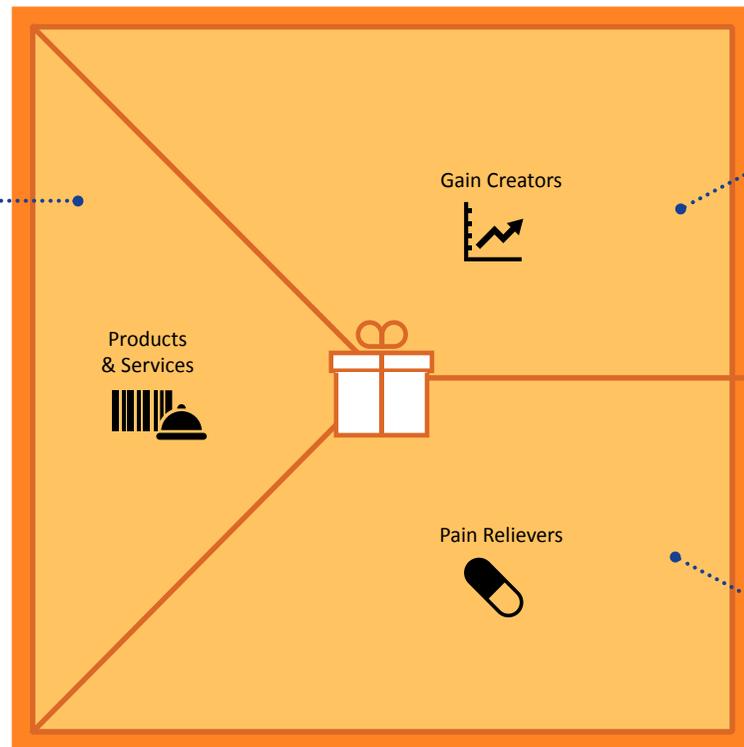
Note! In an optimal case, you would start observing and, e.g. interviewing customers right away, but in a real project setting you often start sketching value propositions with some initial assumptions/facts that you already know.

TIPS ON HOW TO USE VALUE (PROPOSITION) MAP

Products & services

List all components that are needed to help the customer segment complete their jobs.

- Offerings (visible to the customer)
 - Physical products
 - Digital products and main features
 - Service components
- Supporting products and services (“back-office” products/services that are needed, but are not shown to customers)



Gain creators

How does your solution create gains to the specific customer segment?

- Monetary/financial benefits
- Time savings and increased effectiveness (especially employees/managers)
- Help customer fulfil their success criteria/ key performance indicators
- Generates positive emotions
- Has positive social consequences
- Self-fulfilment (e.g. helps customer learn new things, express emotions or regain something that has been forgotten)

Pain relievers

How does your solution alleviate the pains of the customer?

- Fix problems
- Remove frustration, anxiety
- Eliminate fears
- Ease the pain related to costs (time, money)
- Remove obstacles and barriers (e.g. what is preventing them from moving outside their home?)

PROBLEM-SOLUTION FIT

Before you rush into product development, you should have designed the value map and created a customer profile (through observation) to check whether you have found a problem-solution fit.

How do I know if we have found a problem-solution fit?

You should have evidence that you have a problem worth solving or a need worth fulfilling.

1. Pains and/or gains are important for customers (preferably must have)
2. Identified payer (BM can be profitable)
3. You can solve the problem (initial indication that the design solution solves the problem sufficiently, i.e. matches the jobs, pains and gains of the customer)

Traction is the rate at which a business model captures monetisable value from its users (Ash Mayrua)

TIP! “Vitamin” vs. “Pain killer”

- Great value propositions focus on relieving severe pains. This is often a key to finding profitability.
- “Vitamins” are nice-to-have solutions, but it's difficult to build a successful business (model) around them.

BUSINESS MODEL DESIGN - MORE TIPS

WHAT TO DO



1. Start a design from the value/customer or from your competitive advantage

- A) VALUE-DRIVEN: What is the value we are creating and for whom?
- B) RESOURCE-DRIVEN: What is your competitive advantage based on?

2. Guess if you don't know, or leave it empty.

- It's okay to have empty building blocks; this means you need to put effort into those.
- TO DO: Make an assumption and then "get out of the building" to find answers.

3. Stay focused!

If you try to put all ideas on one canvas (i.e. an all opportunities BM), you will make your work very challenging.

TO DO:

- Create different versions (i.e. BM prototypes)
- Prioritize (i.e. make strategic choices) what is crucial for your business

4. Reiterate until you find a problem-solution fit

If the specific customer segment doesn't find your value propositions beneficial:

- Find out why (talk to the customer)
- Redesign your value propositions ➡ to address the needs they express, or
- Change the customer segment

WHAT NOT TO DO



Although there is no single right way to fill in the canvas, some things may make it worse.

1. Filling out the canvases without nailing the perspective (e.g. name of the organization who 'owns' the BM)

2. Copying others' BM canvas

In the innovation (AAL) project setting, you often develop something new, and therefore you need to design a new business model for it. However, there are certain recurring patterns that may be useful for you to understand the dynamics of the business model, for instance

- Platform-based business models
- Luxury business model
- Low cost business model (and 'freemium')

3. Filling out the BM canvas without viewing it as a whole

➡ If you focus on filling a canvas one building block at a time, you may not **see the forest from the trees.**

➡ The canvas helps you see the holistic picture of the business

4. Thinking that the business model is ready after it is filled with post-it notes

➡ Business model development is not ready when a canvas is filled, this is just a starting point for testing.

5. Falling in love with the first business model

➡ If you think that the first business model canvas you draw will make your business fly, you are almost inevitably wrong.

TESTING

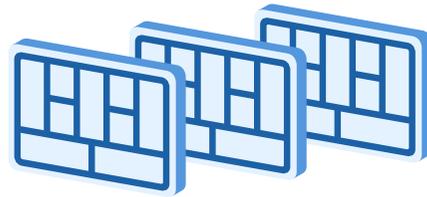
**How to validate business
models in AAL projects**

TESTING - IDENTIFY THE RISKIEST ASSUMPTIONS

Extracting the testable assumptions from canvasses is the first step in business model testing.



THE BUSINESS VISION of your key commercial partner should guide the prototyping. It should be aligned with the project vision/plan that sets the boundaries for development.



1. DESIGN PROTOTYPES

WHAT:

- Creative prototyping to identify alternative paths for business development

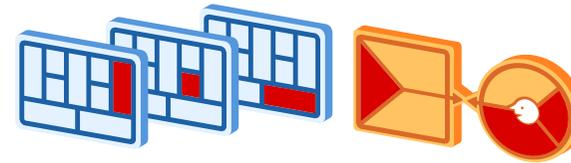
WHEN:

- Designing multiple BM prototypes is a good way to start a project (1st sprint).
- Prototyping can be done also later if you need new ideas.

HOW:

- Use the BM canvas as a framework for prototyping.
- Prototype also different customer segments with help of VP canvas
- Be open and creative, the goal is to create many ideas.

Outcome: Alternative implementations of **business vision** concretized on paper



2. IDENTIFY RISKS

WHAT:

- Critically evaluate designed models to identify involved risks
- Narrow down options

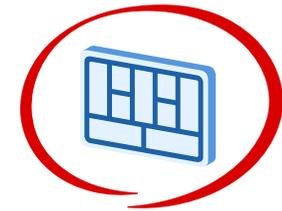
WHEN:

- Crucial for selecting the "starting model" (1st sprint)
- Update the risks of the selected model during each innovation sprint

HOW:

- Discuss potential benefits and risks related to alternative prototypes
- Analyse in detail (some of the most promising) prototypes

Outcome: Realistic analysis of the risks involved in different business models



3. DECIDE

WHAT:

- Decide which model seems the most promising for building a viable business

WHEN:

- During 1st sprint, and when the plan needs revision

HOW:

- Choose the most promising business model and customer segment to start with

Plan A

Outcome: concrete plan outlined on the canvasses from which you begin the testing process

SOME EXAMPLE QUESTIONS TO IDENTIFY THE RISKIEST ASSUMPTIONS

1. Customer segments & problems:

- How severe is customer pain/need?
- How frequently does the problem/need occur?
- ➔ Is the size of the market large enough for your business?

2. Value propositions/offering

- Do your value propositions address the gains and/or pains of the:
 - end users
 - payers
 - other key stakeholders
- Are you able to fulfil value propositions with your products and services?
- ➔ Is your solution right for the market?

3. Channels:

- Can you reach and serve selected customer segments (e.g. end-users, paying customers) through selected channels (cost efficiently)?
- Can you provide value for channel partners? Are they really interested and willing to co-operate?

4. Price / margin / costs

- Is the cost structure competitive?
- Can you turn your business profitable?
- Considering the required margins of all the business partners (e.g. channel partners), is the business still viable?
- Does the business model rely on public subsidies/reimbursement, which is often a very slow path to market?

5. External factors, changes, or inertia for change

- Can you execute business without changing the rules of the game (e.g. regulations, standardized processes, norms of society) that are difficult to change?
- Market/competition
 - Does the market already exist, or do you have to create it?
 - If the market exists, how big is the market? Are competitors profitable?
 - What are their profit margins?
- Macro-economic changes and trends
- Are there some major changes ongoing that might impact your selected business model?

DESIGN EXPERIMENTS - HOW TO USE TEST CARD

PRIORITIZE WHAT YOU TEST

- Extract the riskiest assumption about your business from the canvasses (page X), and try to write it down on a test card in a single sentence.
- Focus first on 'leap-of-faith-assumptions', which are things that need to be true for the business model to work.
- You may need several different tests to validate one assumption → different test cards

KEEP IT SIMPLE

- The goal is to make many small tests, rather than one BIG test.
- Try to validate specific parts of the business model – not all of them at once. The testing process is iterative; the result of one test may have an impact on a subsequent test.

QUALITATIVE VS QUANTITATIVE METRICS:

- In the beginning of the project, the emphasis can be on qualitative feedback, which may be better for learning (e.g. interviews that can be organized quickly).
- When you have initial validation of the problem-solution fit, you should move towards quantitative testing to validate product-market fit.

CRITERIA FOR PASSING THE TEST

- Use simple metrics that can be easily interpreted
- Be precise
- Declare the acceptable limit upfront (people have a tendency to always find positive results from bad ones)

OPTIMAL LENGTH

- The goal is to learn as fast as possible! A test can be short, and you may have many tests ongoing at the same time; the idea is to learn little bits quickly.
- However, you can have some tests going on longer or continuously (e.g. measuring the retention of each new batch of users)

ALWAYS ASSIGN A SINGLE PERSON TO THE TEST

- Some of the tests should be done by the commercial partner, e.g. customer interviews to make sure that they hear direct feedback.
- However, use your project partners for the tests; they may have expertise in completing tests you cannot do by yourself.

AAL projects are a great opportunity to perform tests that validate if a business model is viable and works in real-life. Testing frameworks help to design tests that are clear and concise and can, therefore, be easily discussed and analysed within the project group.

The tool below is adapted from test card introduced by Strategyzer. The lean stack has also a similar "experiment card".

Test Card

Test Name On-line purchase of virtual gym membership

Step 1: Assumption We believe that... +65-year-old Dutch are

- interested in buying our product [a virtual gym] if the price is low enough

Analysis -Criticality: High – not interested/willing to pay → no customers → no revenue

Step 2: Test To verify that, we will... set up an AdWords

- campaign with three different price levels (free, 20€/month and 100€/month)

Analysis - Data reliability: Med – they might just click without any real intent to pay

Step 3: Metric And measure... how many use a google

- search with specific words (elderly/old/gym), and how many of those click the link with the different prices mentioned (free/20/100€ per month)

Analysis - Allocated resources:

- Person Y – select/design the content for the campaign (Web-page, banner...)
- Person X – design AdWords campaign
- Person Z – monitor campaign

Analysis - Test cost: 2000€ + fee based on the number of clicks

Step 4: Criteria We are right if... The number of clicks in group B

- (price 20€/month) is at least 40% of the number of clicks in Group A.

Duration 2 weeks **Deadline** 30-6-2016

Person responsible for implementation Jane Doe

SYSTEMATICALLY TEST THE BUSINESS MODEL

BUILD

Build (in a broad sense) means the creation of something needed for an experiment, e.g.

- Design Interview framework
- Prepare elevator pitch
- Plan sales script for phone calls to potential customers
- Prepare for observations
- Build MVP (see box)

LEARN

Goal: Validated learning

Validated learning is a process in which one learns by trying out an initial idea and then measuring it to validate the effect. (Eric Ries author of The Lean Startup)

- Learning is the essential unit of progress
- Learn by tracking meaningful metrics and creating testable hypotheses about growth and value
- Minimize waste - waste is the effort that is not absolutely necessary for learning (what customers want)

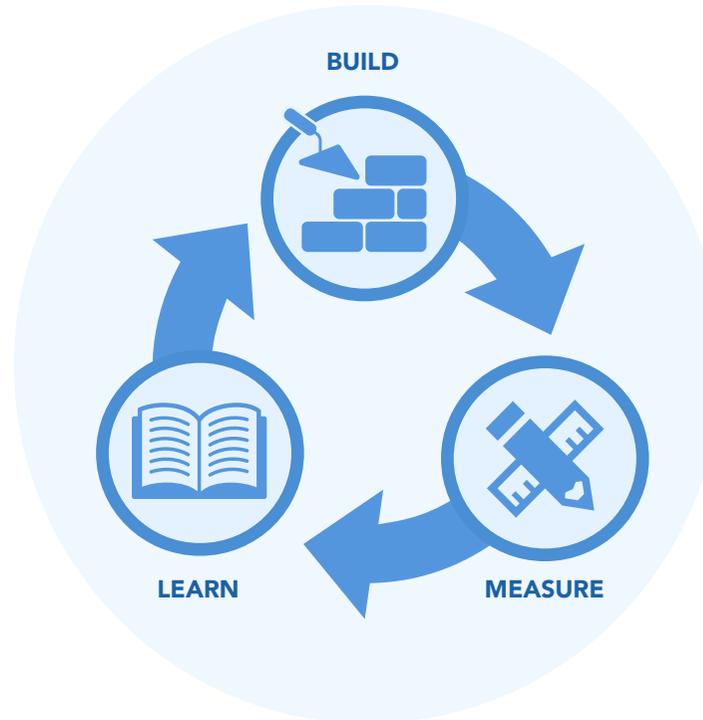
Definition MINIMUM VIABLE PRODUCT (MVP)

MVP is that version of a new product that allows a team to collect the maximum amount of validated learning about customers with the least effort (Eric Ries).

Examples of early stage MVPs, which you can do before building the solution:

- Paper prototypes, illustrations, story boards and user scenarios
- Brochure, prototype of product box, landing page

When you have figured out the riskiest parts of your business model and design test, you should move to actually testing the business model. **Build-Measure-Learn loop (adopted from The Lean Startup) helps you to systematically test the business model.**



“There are no facts, but only guesses, inside your building”.

- Steve Blank

MEASURE

Avoid “vanity metrics”, which are numbers that are easily manipulated (e.g. cumulative number of interested customers, downloads, page views)

Focus on “actionable metrics”, which really indicate if the business (model) can be viable:

- Attention e.g.:
 - percentage of customers that you can reach (get attention) through selected channel
- Acquisition e.g.:
 - of customers with whom you can fix a time for presenting the solution ➡ indicating the size of the problem (is it worth solving?)
- Activation e.g.:
 - % of prospective users that will start using the solution
 - quantitative/qualitative measurements of their first experience ➡ strong indicators for retention
- Retention e.g.:
 - % of users that actively use solution after 3 months ➡ strong indicator for value
- (pre)Revenue e.g.:
 - % of customers who sign up for the list of early deliveries (call to action: signature)
 - % of customers who preorder the solution (call to action: payment) ➡ very strong indicator of value
- Referral e.g.:
 - number of referrals per customer ➡ strong indicator for value

- Ad tracking (e.g. Facebook, Google AdWords)
- Explanation videos/animations presenting your value propositions to specific customer segment(s)
- Wizard of Oz – Implementing manually the back-office tasks that will be automated when the solution is ready
- Learning prototype – Prototype including only the features needed for learning

EXAMPLES WHAT TO TEST

TESTING THE PROBLEM/NEED

The goal (especially in the early stage of the project) is to find out:

- How frequent is the problem/need?
- How painful/strong is the problem/need?
- How easy/difficult is it to find pilot users?
- How easy/difficult is it to get to talk to potential payers?

- 1 **Observing customers in their own physical environment**
- 2 **Problem interviews with potential customers to find out their preferences, attitudes and intended behaviour**

TESTING THE SOLUTION AND VALUE PROPOSITIONS

The goal is to test if you are about to build the right solution that matches your customers' needs. Some key considerations for AAL projects:

- Do you get people's attention with your value proposition?
- Do they perceive the solution as a pain killer or a vitamin?
- Which alternatives are they using (which is preferred?)
- Do they sign up for the trial?

Remember that the goal is to learn, not to build stuff. When testing the solution, always think how you can learn as much as possible with building as little as possible.

- 1 **MVPs (see previous page)**
- 2 **Observing in a controlled environment to understand customer behaviour related to the proposed solution**
- 3 **"Solution interviews" with potential customers to validate the value of solution**
 - Do they understand the concept and the value of the solution (e.g. paper prototype, video)
 - Which features are valuable for them, which are not?

TESTING CHANNELS

The goal is to validate that you are able to acquire customers through the selected channels cost efficiently. Some key issues to consider:

- What percentage of the target group can be reached through the channel?
- How effective is the channel?

- 1 **Interview/negotiate with channel partners (B2B) to find out their interest.**
- 2 **Online channels B2C: Test customer acquisition with MVP- Measure costs (time, money) of customer acquisition and compare it with estimated revenue per customer**

TESTING THE PRICE

The goal is to find out if customers are willing to pay for the solution.

- 1 **Pitch and ask to find out customer first reactions to a certain price.**
 - A potential customer may not even know the price they are willing to pay, but you can get their first reaction when you present your solution and ask for a certain price. The key is to focus on reaction ("are you kidding" vs. "I want that right away").
 - Can be combined with solution interview
- 2 **Presales and "mock sales" (i.e. selling before the product is even ready)**
- 3 **Crowdfunding campaign**

TESTING COSTS

The goal is to find out if you can carry the costs of the potential business model.

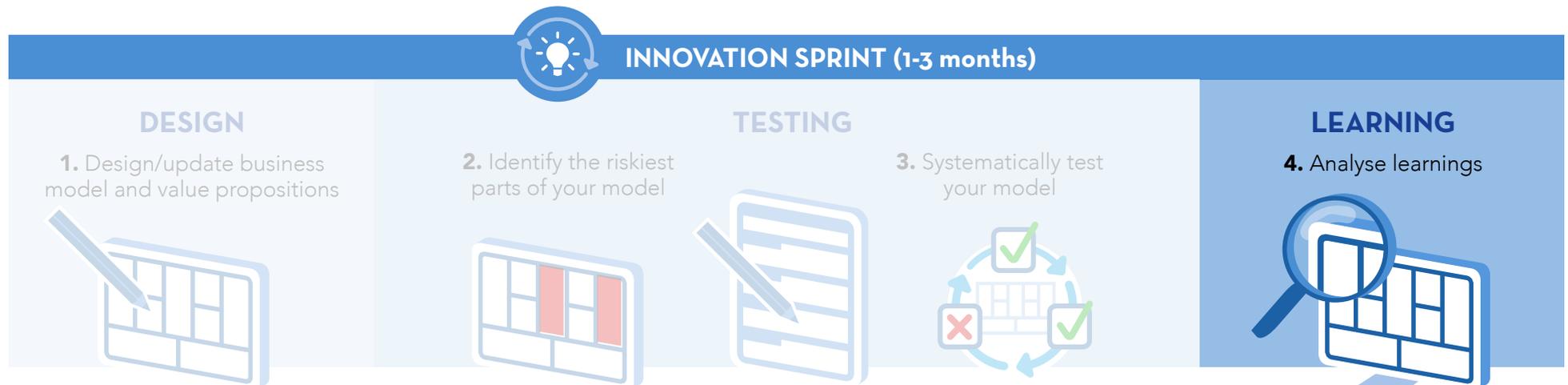
- 1 **Ballpark estimation to make rough estimation of costs (don't go into minor details)**

LEARNING

**How to analyse learnings in
AAL projects**

ANALYSE LEARNINGS

The final phase of an innovation sprint is to analyse the learnings from all the experiments that were conducted. This can be done together with the core team in a sprint review meeting (see next page).



THREE OPTIONS

1. Validated

Test(s) validate your business hypothesis ➡ move on to new tests

2. Unclear results

Test results don't clearly (in)validate your business hypothesis ➡ reiterate tests or design new tests

3. Invalidated

Tests clearly show that your assumptions have failed ➡ Make either minor adjustments to the business model or pivot to a plan B?

DEFINITION

"Pivot is a substantial change in the strategy without a change in the vision".

(➡ substantial change in business model)

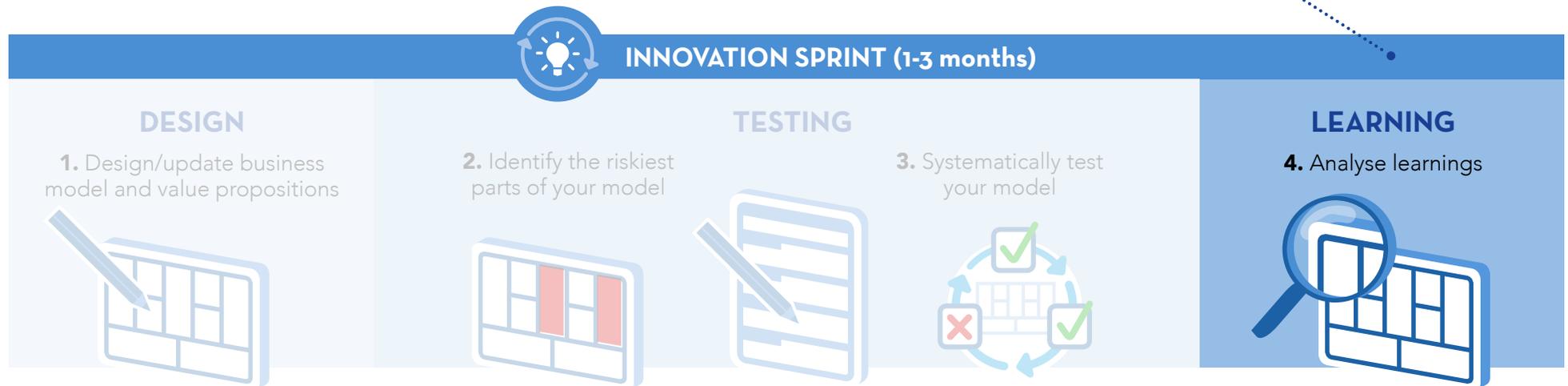
ANALYSE LEARNINGS

SPRINT REVIEW MEETING

What: Goal is to share results, learn together and to decide about strategy for going forward

Who: Core team + additional stakeholder (e.g. persons conducting tests)

How: Both online and offline are possible



AN EXAMPLE AGENDA

1. Present the general status (5 min) – sprint master

2. Present results of individual tests (5 min/test)

- What did you test/measure? What was the success criteria?
What does the data say about results (validated/invalidated(unclear)?
- What did you learn?

3. Discussion about your general strategy for moving forward in commercialisation

- When all learnings are put together, what are the implications?
What is the impact on the selected business model?
- Options:
 - 1) Stay on track - continue to test the current model in new ways
 - 2) Adjust – make some adjustments to the model based on the tests
 - 3) Pivot – change the strategy to reach your vision

4. What to do next? What preparations are needed for the next sprint planning meeting?

- For instance, assignment for partners to design new business model tests for the next 3 months to be discussed and decided in a sprint planning meeting
- Assignment to check the availability of resources for new tests during the next sprint

5. Wrap-up – sprint master

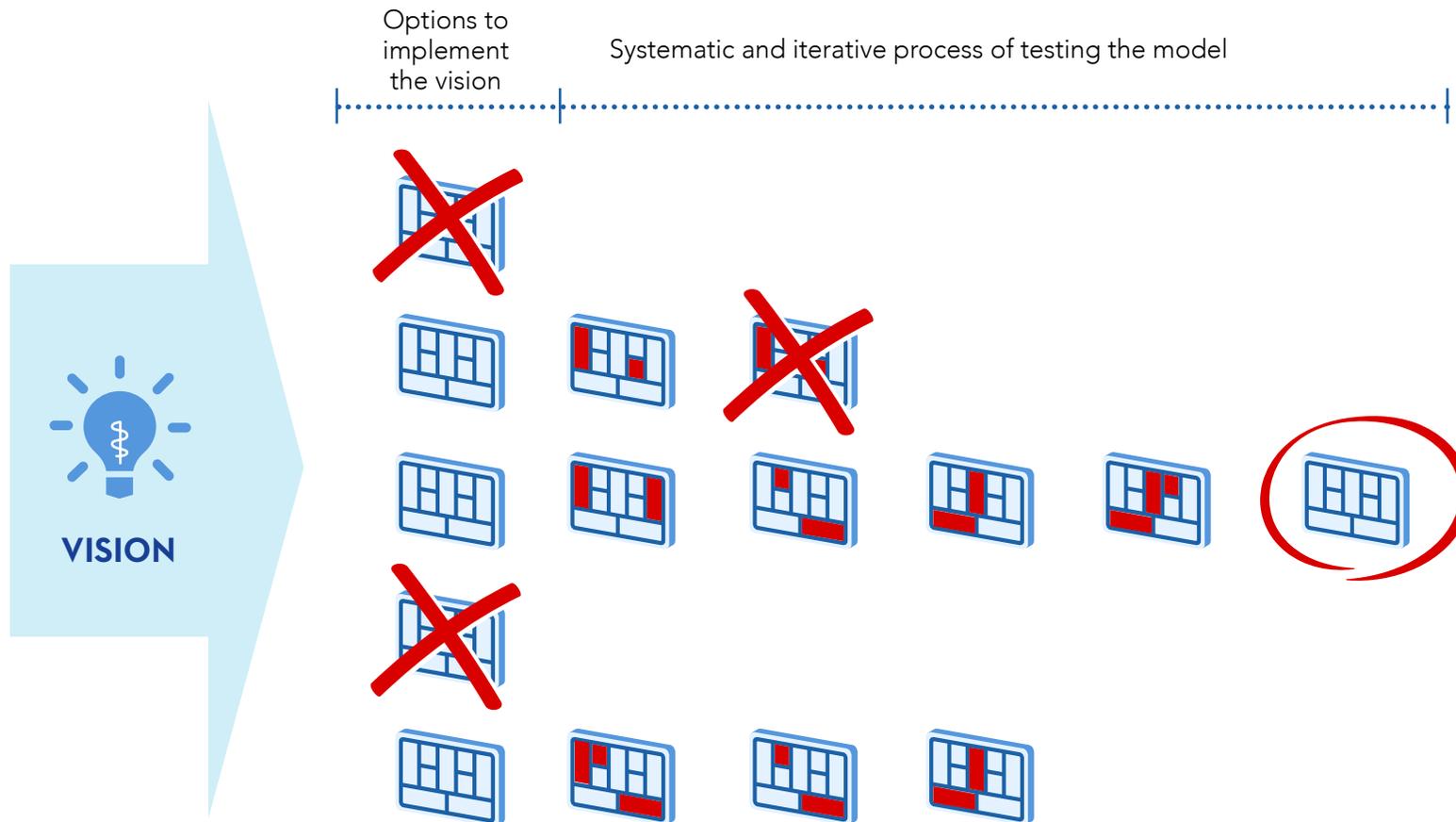
CONCLUSIONS

THE GOAL OF THE AAL PROJECT IS TO FIND A VIABLE BUSINESS MODEL TO COMMERCIALISE AN AAL SOLUTION

The goal of steering the business/product development with iterative design, testing and learning through innovation sprints is to find a viable business model. A viable business model is scalable, repeatable and can be executed profitably. Therefore, it enables the solution developed in the project to be taken to the market and made available to a larger market.

In the beginning of the innovation project, there are numerous assumptions that need to be converted to facts through rigorous testing. The vision

is the starting point, but there are many paths to try to reach the vision. Therefore, the vision should be seen more as a guiding star that keeps you going and helps you to choose a new path when you have discovered that the old path leads to obstacles that you cannot bypass (i.e. no viable business). It is very likely that the strategy and business model for reaching the vision will change during the journey, but that's the point. You are not implementing the plan, you are searching for a viable business model, and often you need to fail many times before finding the model that works.



KEY TAKEAWAYS FOR BUSINESS DEVELOPMENT IN PROJECTS

- Business development requires a common language ➡ Business model and value proposition canvas help in this
- Clear roles and responsibilities
 - Projects don't have business models, so don't develop a BM for a project!
 - Everybody needs to know what their role is in the project.
 - It is crucial to identify who is a key commercial partner; they need to steer business development.
- Business model development is a **continuous process requiring time, resources, management and commitment** (no "silver bullets").
 - Use canvasses and test cards to make the business development process more systematic.
- Keep it lean, keep it simple
 - Only relevant partners involved in innovation sprints, too many partners make meetings ineffective
 - **Don't over plan** business development, most successful entrepreneurs are action oriented!
- Iterate, iterate and iterate
 - Start as **early** as possible to avoid costly mistakes; a good way to start is to organize a sprint kick-off meeting in the beginning of the project.
 - Establish joint understanding for continuous development
- Your goal is to learn as fast as possible
 - Set tight time limits: you don't need a long time to implement simple tests.
 - Small steps at a time
- Communicate learnings



AAL



PROGRAMME