

Lecture #4

Corporate

Aims:

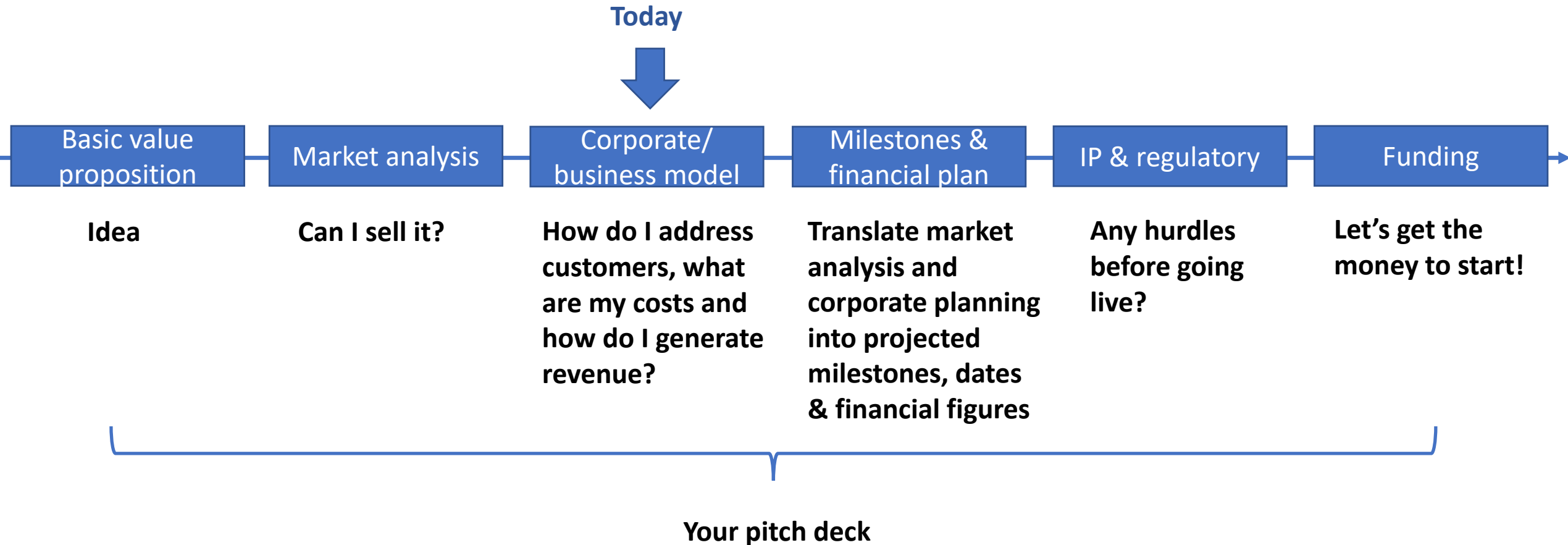
- Develop a detailed business model for your case study.
- Prepare a “Business Canvas” for your group pitch

Course content and schedule 2025

Lecture #/Date	Topic	Details	Seminar tasks
1/ 11.09	General Introduction	Aims of the course, expectations, tasks and assessments General proceeding	Watch Elisabeth Holmes Documentary (Theranos story)
2/ 18.09	Roadmap from academic idea to startup	template business example, Learn about all the steps needed to translate a scientific idea into a startup and what your pitch deck should include => Focus on Value proposition and Business model	Define customer value proposition, USPs and business model (= business example) of Theranos Grouping and assignment of individual presentations
3/ 25.09	Market analysis	Market size, competitors, customer models, growth and scalability,	Introduction into (GlobalData), Find market data on your business example & group innovation
4/ 02.10	Corporate planning	Business models, exit strategies, website & visibility,	Define business example of your group innovation, define markets and competitors
5/ 9.10	Business examples	Business examples 1-4 , detailed feedback	
6/ 16.10	Intellectual property and other legal issues	Business examples 5-8 Patents – facts, data bases, examples Concept of freedom to operate, regulatory hurdles, etc.	Find & analyze patents in your field
23.10 – no lecture!			
7/ 30.10	Timelines & initial steps	Business examples 9-12 Milestones and finance plan from idea to startup/product	Prepare milestones and financial plan for your startup idea
8/ 06.11	Finalizing the pitch deck	Business examples 13-16 Recap: Detailed analysis of individual case studies, last year's best group pitch and TheraMe pitch	Finalize pitch deck
9/ 13.11	How to secure funding	Business examples 17-20 Public funding programs, investments, venture capital, EPFL programs	
11/ 20.11	Guest speaker Daniel Alpern (Alithea)	Business examples 21-24 Real-world EPFL startup insight	Prepare Executive Summary and commercial potential in C4Lformat.
12/ 27.11	Guest speaker Luc Henry (Limula)	Real-world EPFL startup insight	
13/ 04.12	Pitches Groups A (e.g. 4-6) Feedback Groups B (e.g. 1-3)	10min pitches with non-presenting students to provide written feedback	Prepare written feedback on other group's pitches
14/ 11.12	Pitches Groups B (e.g. 1-3) Feedback Groups A (e.g. 4-6)	10min pitches with non-presenting students to provide written feedback	
11.12 at 10:15 am	Trophy Award & Feedback		

Group	Student	Individual Business Example		Group Pitch
		Date	Company	
1	Lucie Huamani-Cantrelle	2025.10.9	Oraki Oncology Nanopharmacy Group	2025.12.11
	Hugo Heinkélé			
	Gresi Alejandra Velasco Miranda			
	Daniel Alves Lopes			
2	Micheletti Davide	2025.10.16	Liom Resalis Therapeutics VirtaMed Cutiss	2025.12.11
	Garzone Christian			
	Nordgren Jens Wilhelm Klaës			
	Lamouroux Lou-Anne Suzanne			
3	Antonio Del Priore Antunes	2025.10.30	BioSerenity Cradle Strand Therapeutics AC Immune	2025.12.11
	Félix Alfred Constantin			
	Enzo Gérard Alain Espinosa			
	Loris Alan Fabbro			
4	Axel Thomas Croonenbroek	2025.11.06	EpiBone TheraPanacea Seres Therapeutics Vanarix	2025.12.04
	Amandine Marie Nicole Alice Ducamp			
	Manon Isabelle Mireille Borlet-Hôte			
	Manon Lou Sierra			
5	Taha yassine kotti	2025.11.13	Tengion	2025.12.04
	Guillaume Belissent			
	Samara Santarelli			
	Mariem maazoun			
6	Ghassan Abboud	2025.11.20	Bioneris 23andme	2025.12.04
	Tolga Semiz			
	Dünya Zoghlami			
	Maria Claudia Travaglio Ramirez			

Timelines and further proceeding of course BIO-490



- Select a company to be presented in a case study, get it approved and prepare your individual case study according to the overall schedule (5min presentations starting **next week!**)
- Select a topic for your group pitch, get it approved and prepare slide deck and C4L application. Submit at latest the night (23.59h) before your presentation; **December 4th** for the first batch of groups

Road to founding a startup

Commercialization

1. What is the **USP**? Is there a **market** and how big is it?
2. How do I address my **customers**, what is the **business model**, is it **scalable**?
3. What is needed (**time, budget and resources**) to develop a minimal marketable product (**MMP**)?
4. Do I have **patent protection** and **freedom to operate**? Any other **legal or regulatory hurdles**?
5. How to secure **funding**?

Business-to-business (B2B)?

Business-to-consumer (B2C)?

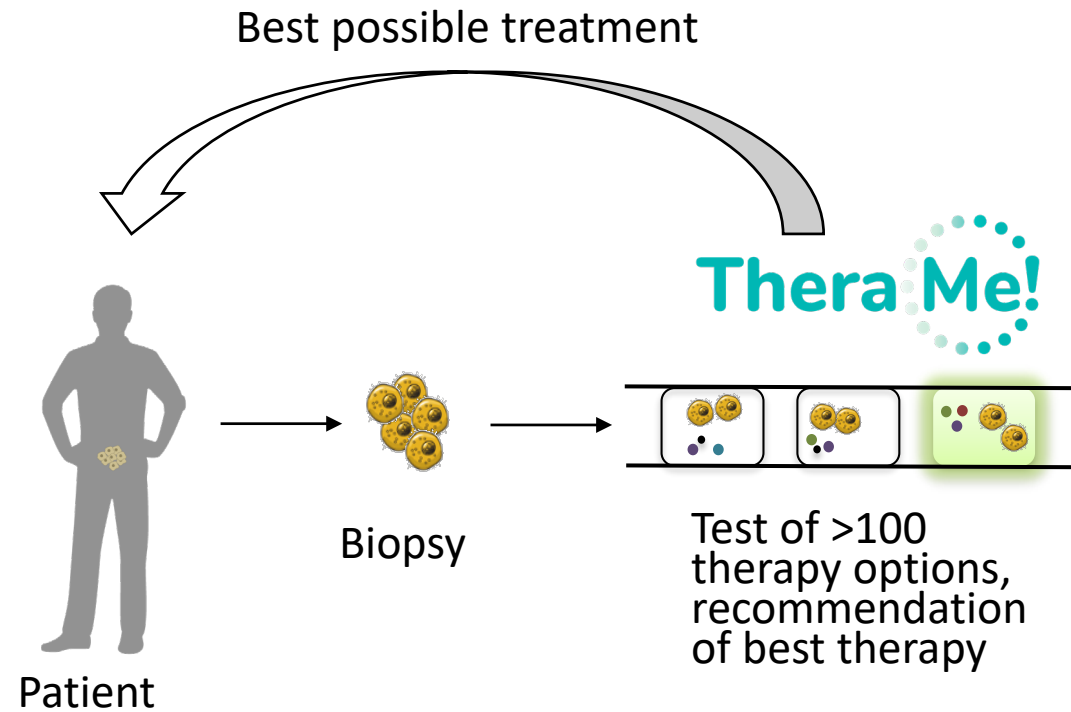
Selling instruments and kits or fee for service (FFS)?

Growth and exit strategy of the company?



=> today's lecture on **Corporate Planning**

How to address patients as consumers?



First value proposition

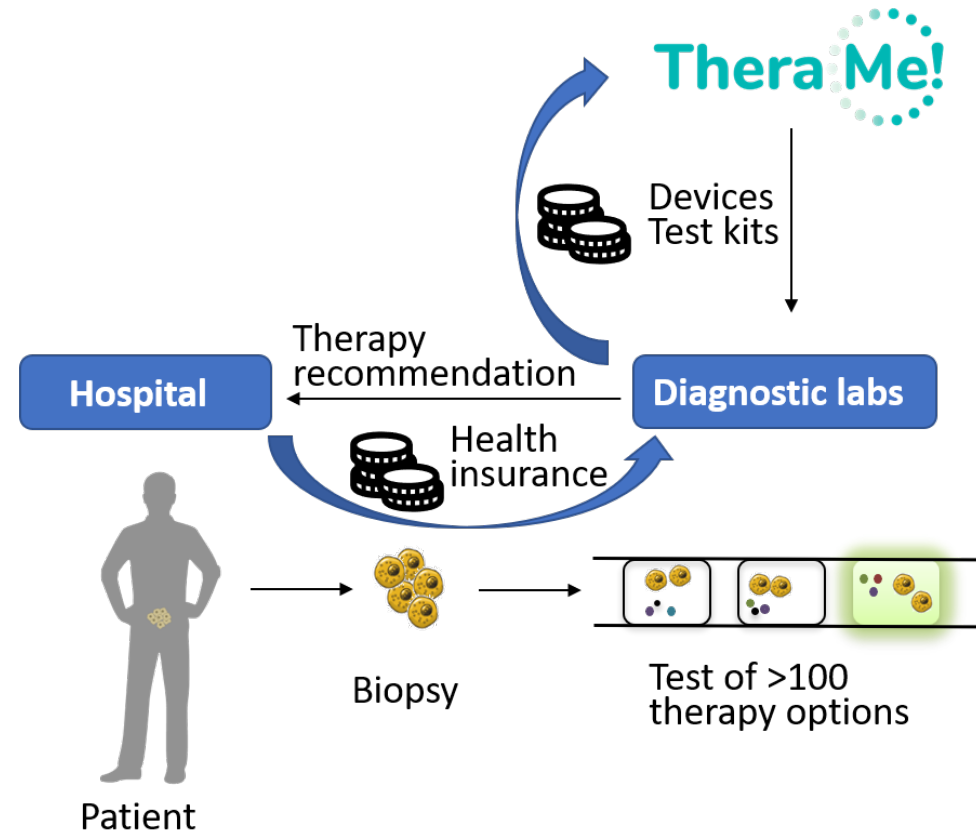
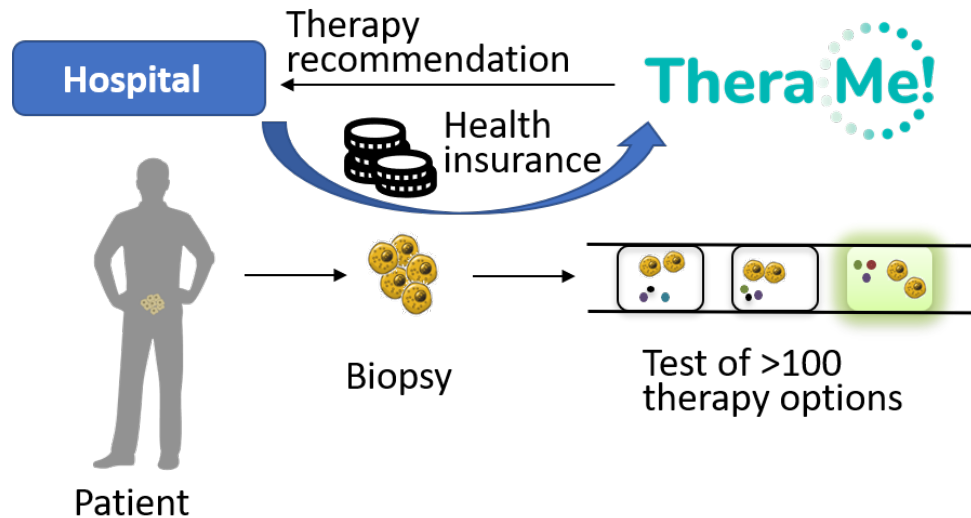
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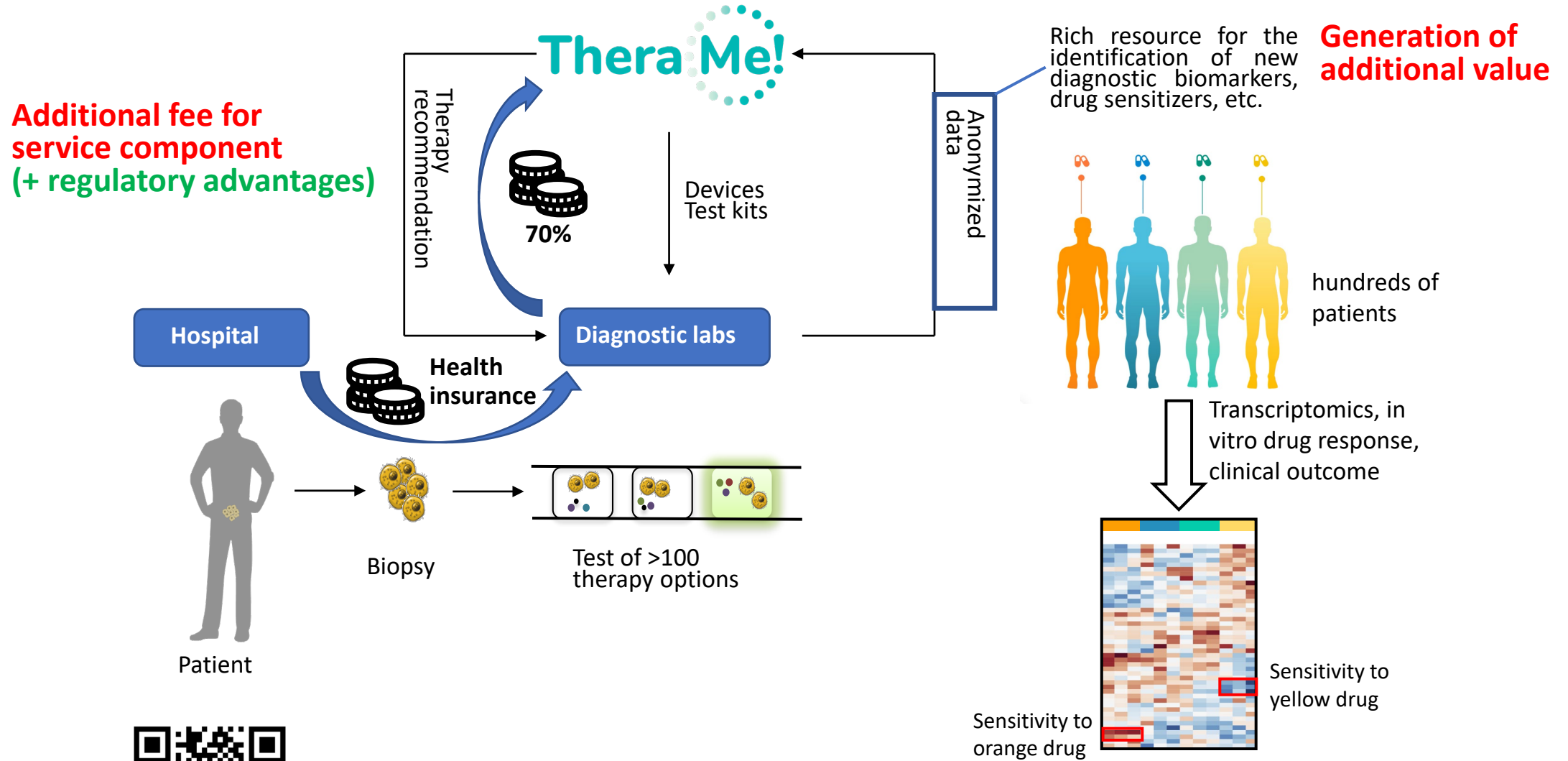


Alternative preliminary business models

- Requires a lot of staff at TheraMe!
- Requires to build up a distribution net
- No third parties have to be paid

- Time intense work is carried out at diagnostic lab (and external device manufacturers) => easily scalable
- Makes use of existing distribution net
- Third party will keep part of the revenue

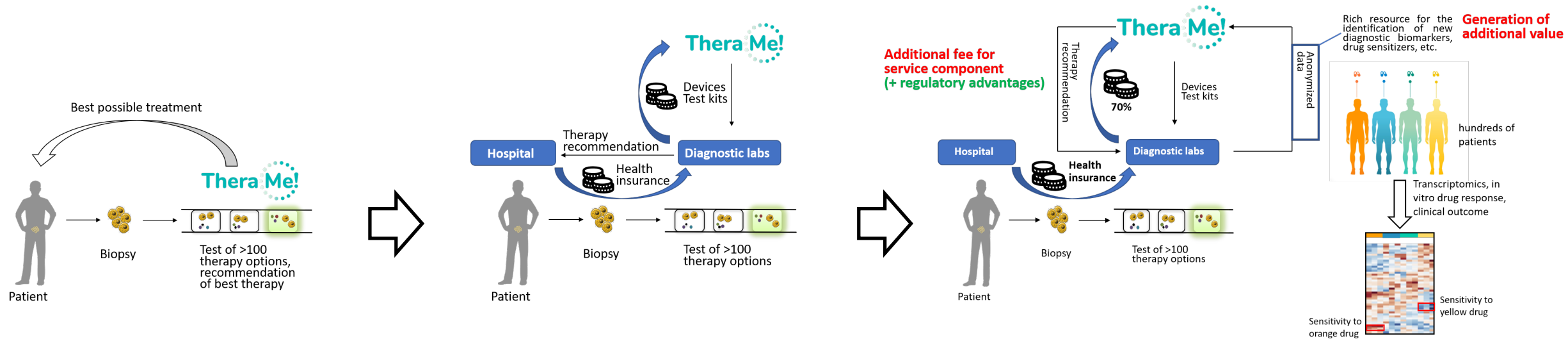
How to get additional revenue and growth?



www.thera-me.ch



To find the perfect solution, your business model has to evolve...

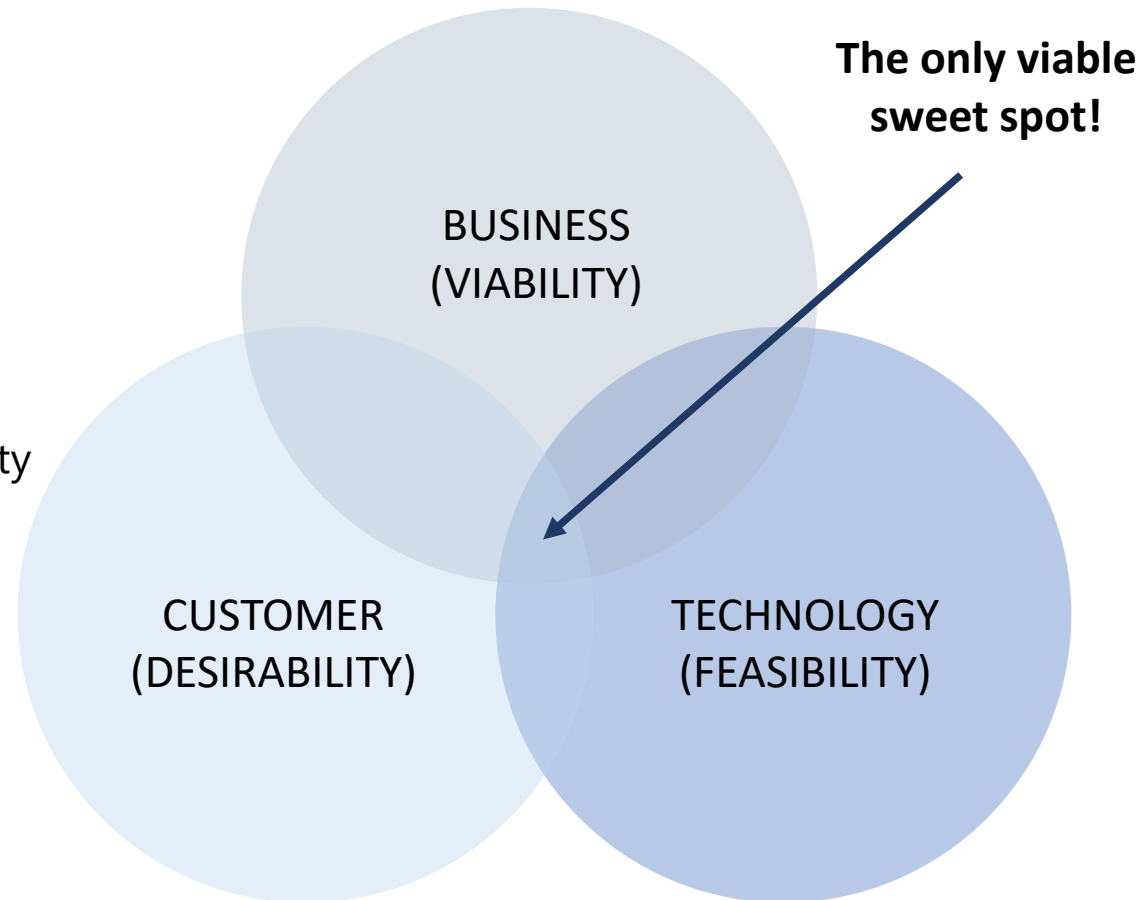


Let's discuss the basics that have to be taken into account!

What makes a good business Model?

Note that there are conflicting interests:

- Customer: Minimal cost, maximal functionality
- Business: Maximal profit
- Technology: Minimal complexity



To be addressed: Customer, costs & profit

Where do academic labs typically operate in this space?

Who are my customers?

The two most common business models are

1.) the business to consumer (**B2C**) model, in which a company sells products and services directly to individual end users. This is very popular in Ecommerce, but less unusual in the life science sector (regulatory hurdles, required infrastructure, required application specialists/ physicians). **COVID tests** are a good exception!

2.) the business to business (**B2B**) model, in which a company sells products or services to other companies that offers and distributes them to the end user. In the life science sector this could be used to e.g. **sell diagnostic kits to approved and established diagnostic labs** which make them available to the public.

Which other business models can you think of?

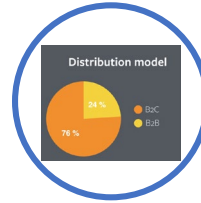
There are also **C2B** (e.g. individuals sell their data or cells to companies) and **C2C** models (consumers exchanging goods and services on internet platforms).

Most common payment types



Subscription

The subscription business model charges customers a recurring fee -typically monthly or yearly – additional **private health insurance packages** can be considered as a subscription model.



Direct sale (or e-commerce)

Under a direct sales business model, sales of products or services generate revenue through a network of salespeople, who sell directly to customers. Examples are e.g. **23andMe**.



Freemium

The freemium model works in a few different ways but most popularly companies use it by offering a “free trial” of their product or service or a “limited free version” of their product or service. E.g. for **healthcare Apps** and online medical consulting.



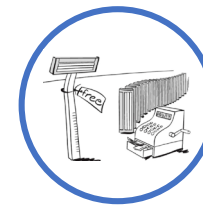
Product to Service

It allows customers to purchase a desired result rather than the equipment that delivers that result. The user pays as and when they access the service, as opposed to paying a for a product. **NGS companion diagnostic tests** are carried out this way



Leasing Model

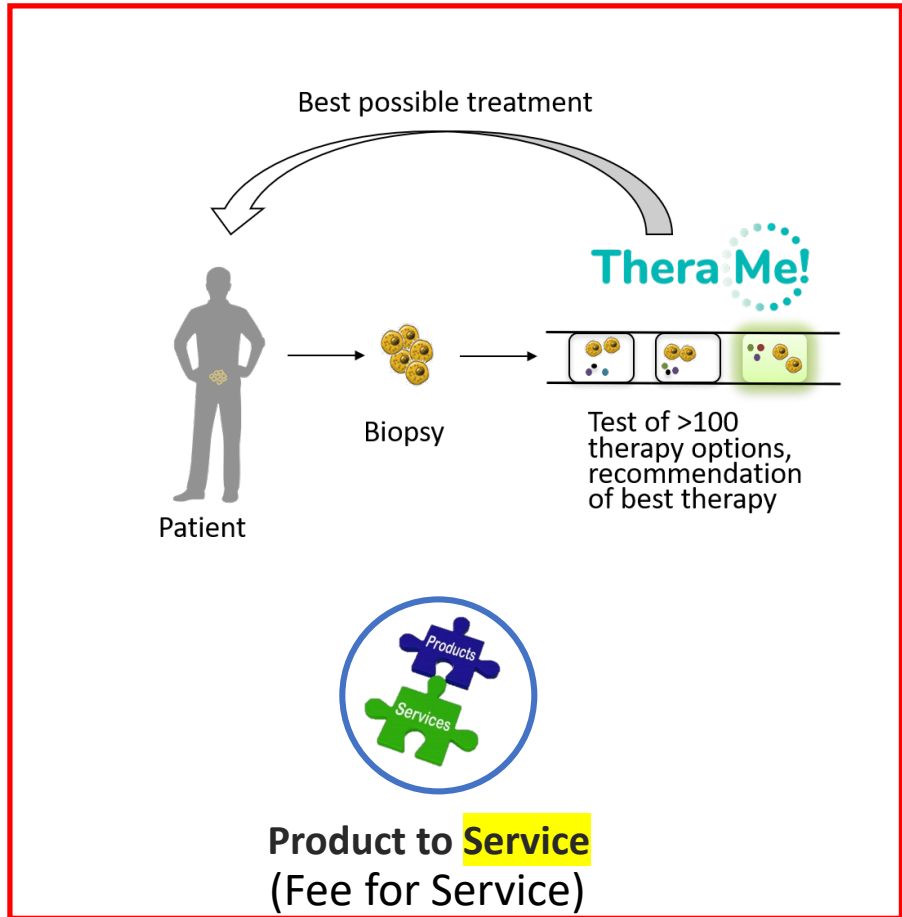
Under the leasing model, a company buys or produce a product and then leases it to customer for a periodic fee. Not unusual for **large equipment**, including e.g. annual service contracts.



Razor Blades

Companies offer a cheaper product that includes more expensive accessories. When you purchase a razor from the drugstore, you will notice that the replacement razor blades cost more than the razor itself. Examples such as e.g. the **Roche Light Cyclor**

Most common business and payment types



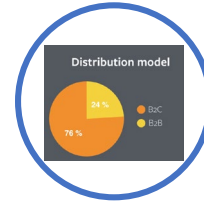
Requires a lot of staff at TheraMe!

Requires to build up a distribution net

No third parties have to be paid

Total control over technology, regulatory benefits

Most common business and payment types



Direct sale (or e-commerce)

Selling instruments & kits
(microfluidic instruments, chips and reagents to e.g. diagnostic labs)

Big hurdle for the customer: has to buy a 100k piece of equipment before serving a single end user of a 2.5k patient screen



Leasing Model

Selling kits (chips and reagents to e.g. diagnostic labs) for 2.5k and **leasing** instruments, e.g. at 10-20k per year

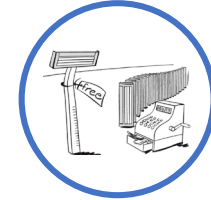
Lowers the initial investment hurdle for the customer

Most common business and payment types

⇒ TheraMe! initially envisages a FFS model before switching to a hybrid model for kits (chips & reagents to be sold directly), instruments (lease) and services (data analysis, instrument maintenance)

Selling or leasing the instrument at or **below internal costs** and making money only with the kits

Minimal financial hurdle for the customer, but very large investments for TheraMe! to acquire customers (not scalable)



Razor Blades

TheraMe! hybrid revenue model



Leasing revenue stream

We lend the laboratoires the in vitro instrument at a price of 10'000 CHF per year



Transactional revenue stream

We sell the kit at a price of 2'500 CHF per patient



Service based revenue stream

We charge for various services (training , technical supports, software and hardware updates)
We exploit the generated data sets

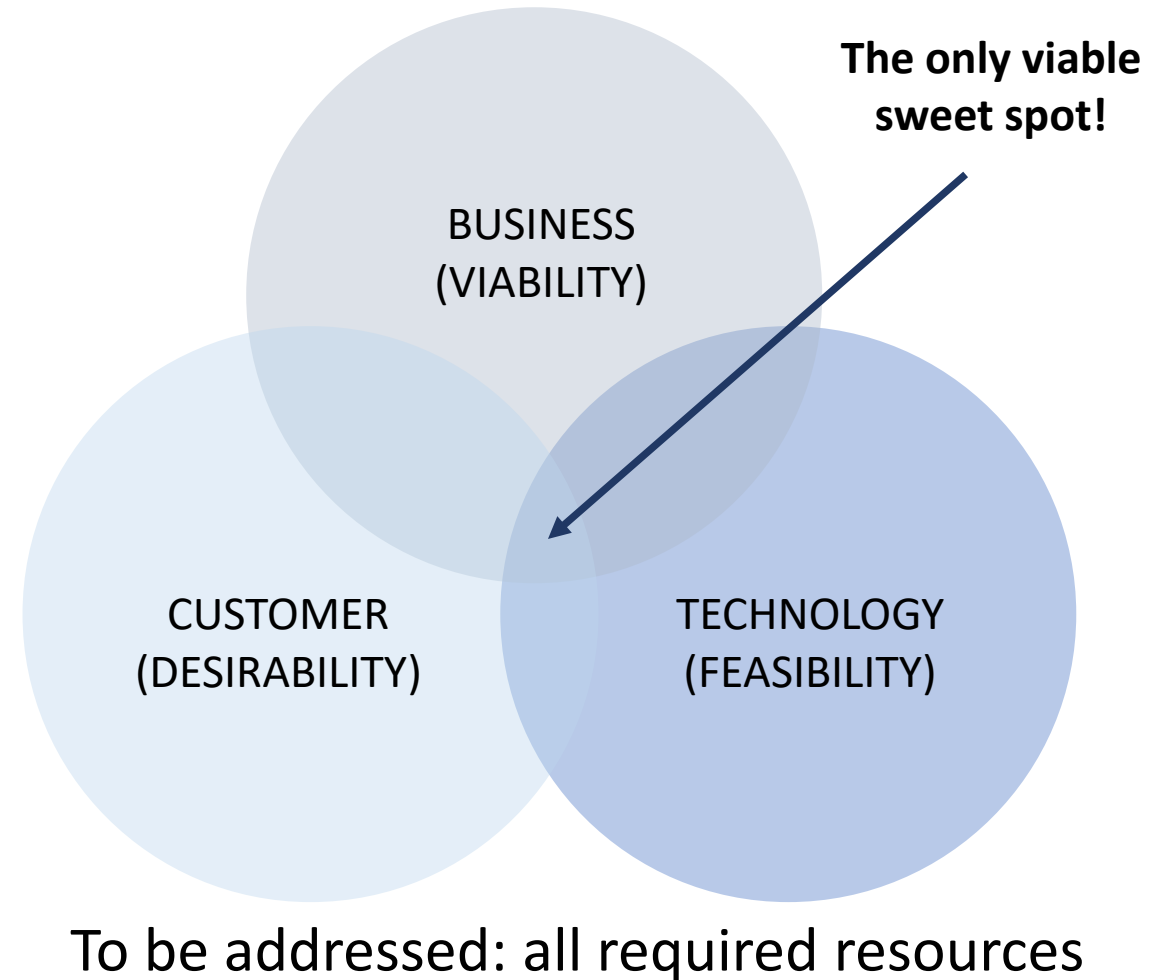


Now that we have sorted out the revenue model – let's have a look at the costs...



Is this all feasible?

- Can you execute the activities?
- Do you have the resources you need, like equipment or expertise?
- Key staff members?
- Is there enough money to invest?
- Partnerships with industry leaders?



Is this all feasible? Let's look at the details....

Nice tool to do this is the business canvas...

(it will also help collecting a lot of background info for preparing a work and business plan in the next lecture)

Business Prototyping



Business prototyping

Business Model Canvas

Designed for:

Startup Name

Designed by:








Name1, Name2, ...

Date:

DD/MM/YYYY

Version:

X.Y

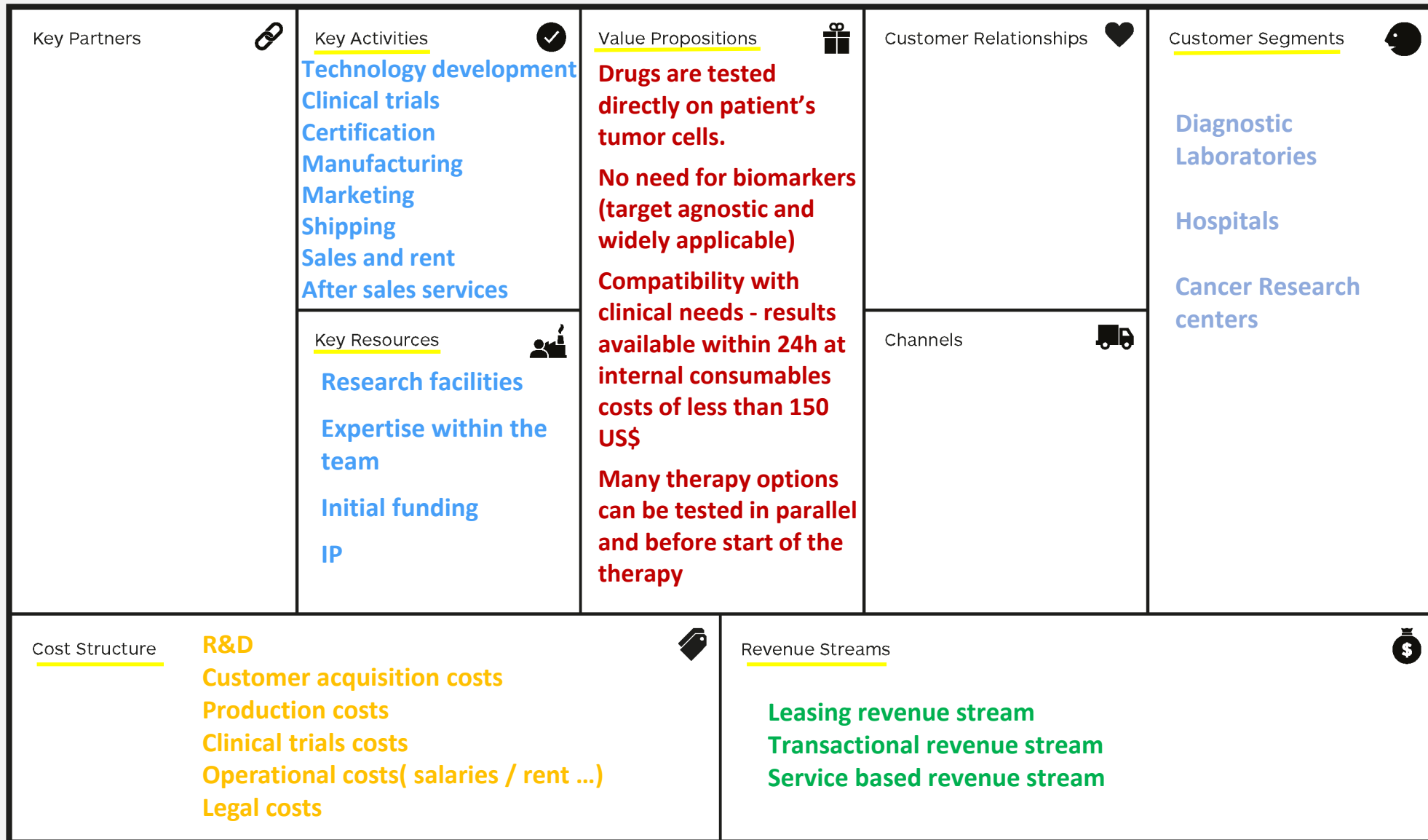
<p>Key Partners </p> <p>Who are our Key Partners? Who are our key suppliers? Which Key Resources are we acquiring from partners? Which Key Activities do partners perform?</p> <p>MOTIVATIONS FOR PARTNERSHIPS: Optimization and economy, Reduction of risk and uncertainty, Acquisition of particular resources and activities</p> <p>feasible?</p>	<p>Key Activities </p> <p>What Key Activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue streams?</p> <p>CATEGORIES: Production, Problem Solving, Platform/Network</p>	<p>Value Propositions </p> <p>What value do we deliver to the customer? Which one of our customer's problems are we helping to solve? What bundles of products and services are we offering to each Customer Segment? Which customer needs are we satisfying?</p> <p>CHARACTERISTICS: Newness, Performance, Customization, "Getting the Job Done", Design, Brand/Status, Price, Cost Reduction, Risk Reduction, Accessibility, Convenience/Usability</p>	<p>Customer Relationships </p> <p>What type of relationship does each of our Customer Segments expect us to establish and maintain with them? Which ones have we established? How are they integrated with the rest of our business model? How costly are they?</p>	<p>Customer Segments </p> <p>For whom are we creating value? Who are our most important customers? Is our customer base a Mass Market, Niche Market, Segmented, Diversified, Multi-sided Platform</p> <p>desirable?</p>
<p>Cost Structure </p> <p>What are the most important costs inherent in our business model? Which Key Resources are most expensive? Which Key Activities are most expensive?</p> <p>IS YOUR BUSINESS MORE: Cost Driven (leanest cost structure, low price value proposition, maximum automation, extensive outsourcing), Value Driven (focused on value creation, premium value proposition).</p> <p>SAMPLE CHARACTERISTICS: Fixed Costs (salaries, rents, utilities), Variable costs, Economies of scale, Economies of scope</p> <p>viable?</p>		<p>Revenue Streams </p> <p>For what value are our customers really willing to pay? For what do they currently pay? How are they currently paying? How would they prefer to pay? How much does each Revenue Stream contribute to overall revenues?</p> <p>TYPES: Asset sale, Usage fee, Subscription Fees, Lending/Renting/Leasing, Licensing, Brokerage fees, Advertising</p> <p>FIXED PRICING: List Price, Product feature dependent, Customer segment dependent, Volume dependent</p> <p>DYNAMIC PRICING: Negotiation (bargaining), Yield Management, Real-time-Market</p>		

One of the most used tools to create and innovate business models is the Business Model Canvas:

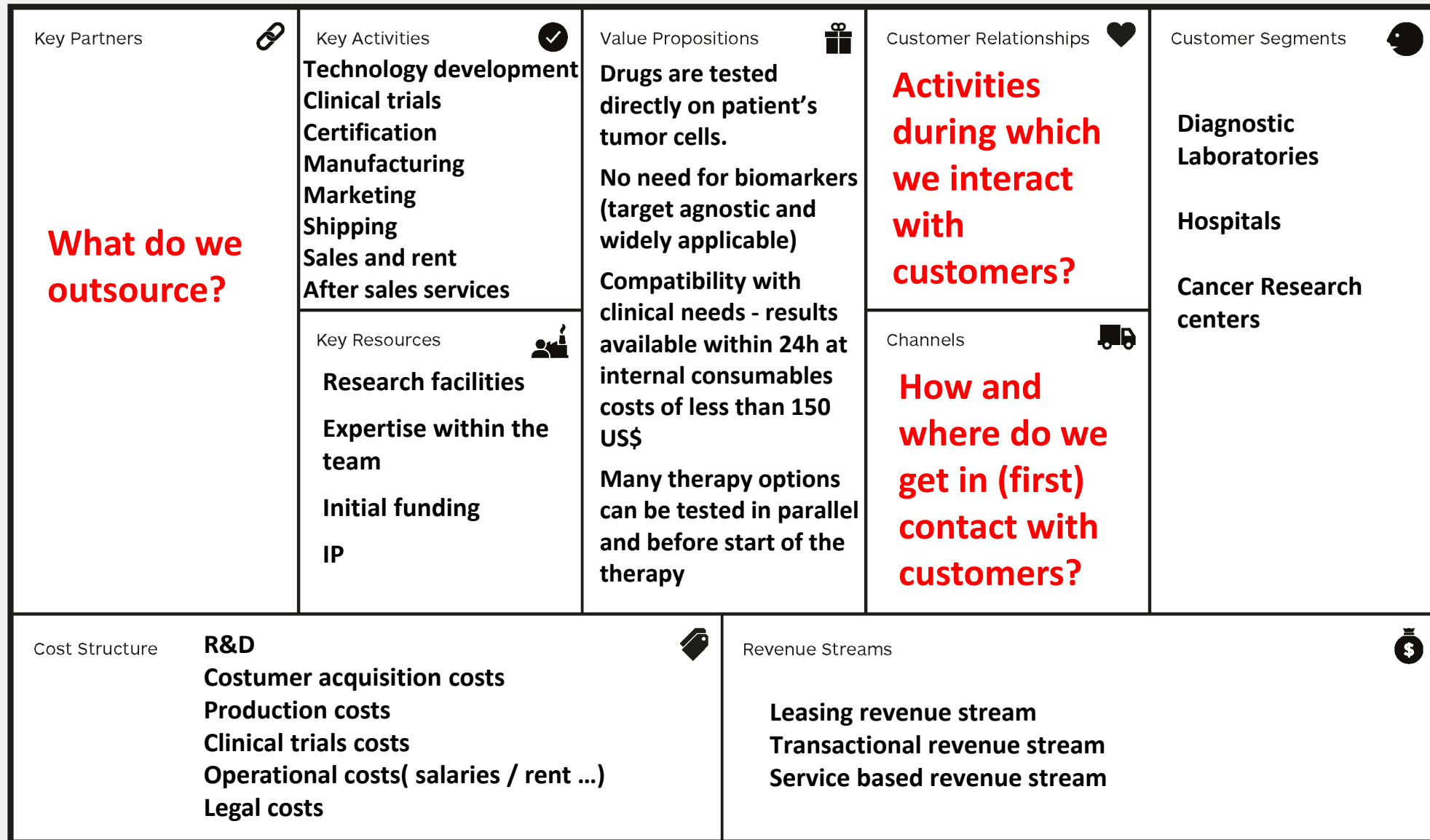
- It is composed of 9 building blocks that are needed to describe a business
- It's not a checklist but more of a guide to help the founders tell a story.

Designed by: The Business Model Foundry (www.businessmodelgeneration.com/canvas). PowerPoint implementation by: Neos Chronos Limited (<https://neoschronos.com>). License: [CC BY-SA 3.0](https://creativecommons.org/licenses/by-sa/3.0/)

The TheraMe! Business Canvas



The TheraMe! Business Canvas



Menti: Who are the key partners and (external) service providers of a cancer diagnostics company?

Join at menti.com | use code **1707 8037**



Manufacturing companies

Licencing and certification companies

Clinical trials firms

Partnering hospitals and doctors

Legal and accounting

Menti: What are the activities during which a cancer diagnostics company interacts with customers?

Join at menti.com | use code **1811 0979**



Consulting and Installation

Training and technical Support

Patient specific drug response report

Software and hardware updates

Quotations, billing and pricing

Menti: Through which channels does a cancer diagnostics company get in contact with customers?



Join at menti.com | use code **5553 5650**

Doctors

Governmental Health institutions

Cancer conferences

Cancer organizations

Internet

The TheraMe! Business Canvas



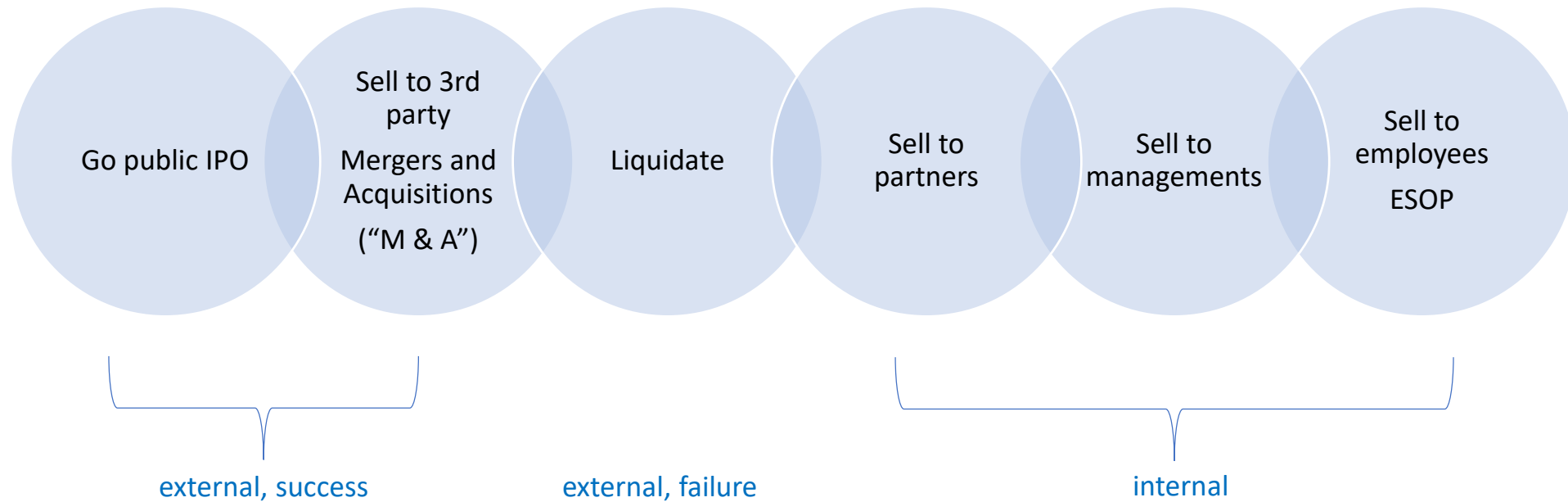
What comes after the company has been founded and operates on the market?



- The exit strategy is the final plan for return-on-investment (for individuals or the entire company)
- Gives investors an idea of timelines and possible profit
- The choice of exit plan can influence business development decisions.

What possible exit scenarios can you think of?

Types of exit strategies



TheraMe! exit strategy



Go public IPO

Prior to being taken over by Roche, Foundation Medicine raised 106M US\$ with an IPO.



Sell to 3rd party (Mergers or Acquisitions)

As also big pharma is looking into personalized medicine and systems allowing to test anti-cancer drugs in a more physiological environment, takeovers are quite common. They usually include major increases in the company value (see e.g. takeover of Foundation medicine by Roche in 2015/2018).

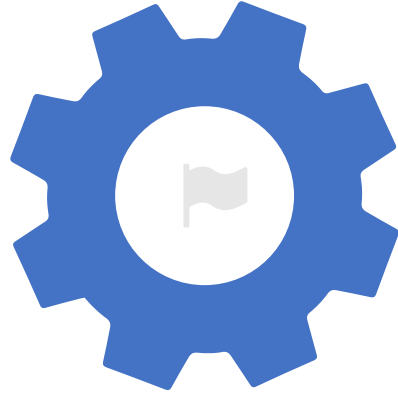
Now that you have a clear idea of your future business, how to tell it to the world?

Early stage visibility

Any ideas on how to get visibility?

Keys to startup visibility (e.g. for attracting investors)

Build a robust website



Present case studies at conferences
(visibility in the field, or for investors – e.g. www.bio.org)



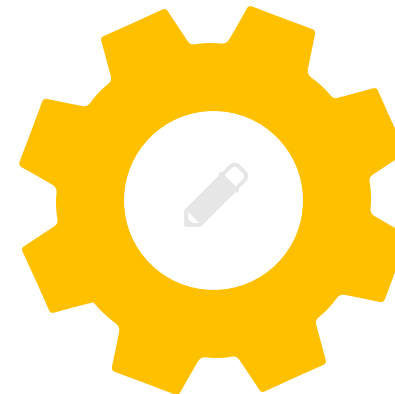
} easy first steps (pre-launch)



Encourage reviews and testimonials



Tie everything to social media



Partner with big industry and prepare press releases
(e.g. B3C group, ~2k CHF per release, depending on channels)

Example: TheraMe! website

TheraMe!

Why choose a standard therapy if there are no standardized cancers?

Because everybody is unique

We redefine cancer care with microfluidic technology



➔ **Place an easy take home message on the landing page (definitely NO scientific abstract!) and make it look nice...**

BIO-490 students tasks for today/ this week

- Prepare a business model canvas for your example innovation:

Key Partners Manufacturing companies Licencing and certification companies Clinical trials firms Partnering hospitals and doctors Legal and accounting	Key Activities Technology development Clinical trials Certification Manufacturing Marketing Shipping Sales and rent After sales services Key Resources Research facilities Expertise within the team Initial funding IP	Value Propositions Drugs are tested directly on patient's tumor cells. No need for biomarkers (target agnostic and widely applicable) Compatibility with clinical needs - results available within 24h at internal consumables costs of less than 150 US\$ Many therapy options can be tested in parallel and before start of the therapy	Customer Relationships Consulting and Installation, Training and technical Support Patient specific drug response report Software and hardware updates Quotations, billing and pricing Channels Doctors Gov. Health institutions Cancer conferences Cancer organizations Internet	Customer Segments Diagnostic Laboratories Hospitals Cancer Research centers
Cost Structure R&D Customer acquisition costs Production costs Clinical trials costs Operational costs(salaries / rent ...) Legal costs		Revenue Streams Leasing revenue stream Transactional revenue stream Service based revenue stream		

- **Visibility:** Prepare a catchy title slide for your pitch deck or website

TheraMe!
 Why Choose A Standard Therapy If There Are No Standardized Cancers?



Questions?

