

**Q1. When we talk about “the third Mission of the University”, what are we referring to?**

1. Persuade researchers and professors to provide consultancies also outside the university
2. Improving post-lauream education with technology-oriented innovation courses.
3. Bring the outcome of research into the market and the real society

**Q2. During the course we have considered Steve Blank six categories of startups. Would you please list them and say where you think a small shoe repair shop belongs to?**

6 categories of startups:

1. lifestyle business
2. Small business
3. startups designed to be scalable
4. startups designed to be quickly sold
5. startups from large companies
6. social startups

I think that the small shoe repair shop belongs to the category of small business

**Q3. In Ash Maurya Lean Canvas, can you describe what the “Key Metrics” square describes?**

In Ash Maurya's Lean Canvas, the "Key Metrics" square identifies the essential metrics to monitor business performance and growth, such as conversion rate, customer acquisition cost, and customer lifetime value. These metrics provide crucial insights for informed decision-making.

**Q4. What does Steve Blank’s “Get out of the building!” sentence refer to?**

1. Don’t look for answers in the computer, go talk to people!
2. Don’t spend too much time in front of the computer or you will get exhausted, get out and enjoy.
3. Don’t spend too much time in the university but find a job as soon as possible.

**Q5. What is the key element that comes into play when passing from the Problem/Solution Fit phase to the Product/Market one?**

**Q6. What does the Lean Startup Methodology deal with?**

1. It deals with implementing Toyota Lean Production methods into a startup
2. It deals with implementing rapid, iterative market checks to validate a product idea
3. It deals exclusively with Agile software development

**Q7. Considering three different types of investors, please put them in the order you expect them to interact with a startup going from its first days to its scale-up phase:**

- 1. Venture Capital**
- 2. business angels**
- 3. FFF**

1. FFF (Friends, Family, and Fools): These are often the first investors in a startup, providing the initial seed capital to get the business off the ground.
2. Business Angels: After the initial phase, business angels typically come in, offering not only funding but also mentorship and industry connections to help the startup grow.
3. Venture Capital: Once the startup has demonstrated some traction and growth potential, venture capital firms usually step in to provide larger amounts of funding to scale the business.

**Q8. What is a key success factor of platform business models?**

1. The Web Effect
2. Being more "actual" (while traditional pipeline models are "old")
- 3. The Network Effect**
4. The higher speed of the Internet

**Q9. how would you describe a specific "budget", in a startup?**

1. It's the cumulated revenue and expenses of the previous year
- 2. It's an estimation of revenue and expense in a future period of time**
3. It's the cumulated revenue and expense of the previous months of the current year

**Q10. Why are stock options such a valuable tool for companies?**

1. It is an additional way for the company to generate revenues
2. It is a way to distribute the company shared to small inventors
- 3. It is a way for a company to keep valuable employees linked and committed to the company**

**Q11. To see if a company is profitable, that kind of data would you be looking for ?**

1. Number of order

2. EBITDA

3. Number of employees

N.B.: EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization)

**Q12. Draw here the lean Canvas and fill it for either (you choice) uber or amazon or airbnb**

## Robocutter

Sheila and Davide are friends who studied at the same Engineering department and worked on a novel way to optimize wood cutting by applying a Vision-based AI algorithm to minimize wood cutting process wastes and performing high quality cuts maximizing the value of wood natural features.

Their algorithm works well in a laboratory environment, simulated by Matlab.

Now they are thinking to leave the university and launch a startup offering technology to wood cutting machinery manufactures.

***Q13. If you suggested them to start looking for a first limited investment, how would you use such an investment?***

1. Look for money! You have to run and industrialize the product as soon as possible!
2. Do an Advertising Campaign to have orders as soon as possible!
3. Go and perform some interviews to validate your product ideas as soon as possible!

At a fair, Sheila and David meet Mark, an old friend working as a sale agent for a big company distributing wood cutting machinery. Very useful link! They talk to Mark about their idea and Mark gives them big insights on the industry, confirming their ideas: nobody is currently offering that feature yet!! Sheila and david decide to propose to Mark to join them and build a startup. mark accepts. Since he is already working, he will dedicate to the company just a day every week. Sheila and David, instead, will work full-time - Sheila will take the role as the CEO and will follow sales and market development. As far as the initial investment which they need, Mark accepts also to help putting in the company € 15.00, which is the only money that have! They three meet and decide to split the equity 55%, 30% and 15%

***Q14. How would you assign the stocks (azioni) and why?***

Given the roles and commitments of Sheila, David, and Mark, the proposed equity split of 55%, 30%, and 15% seems reasonable, but let's consider the logic behind it and the specific allocation of stocks:

1. Sheila (55%): As the CEO and someone who will be working full-time on sales and market development, Sheila will be taking on a significant amount of responsibility and will be crucial for the growth and success of the startup. This justifies her receiving the majority of the equity.
2. David (30%): David, also working full-time, likely contributes significantly to the technical development and implementation of their product. His full-time

commitment and technical expertise are critical, warranting a substantial share of the equity.

3. Mark (15%): Although Mark is contributing only one day a week, he brings valuable industry insights and connections that are crucial for the startup's initial stages. He also contributes the initial investment of €15,000. His equity is lower because his time commitment is less, but he still holds a significant stake due to his strategic value and financial contribution.

Robo Cutter is born. Sheila, David and Mark quickly consume the initial € 15.00 but the more they go on their plan, the more it becomes evident they have “something”. At a startup competition they present the idea and they meet Eric , a guy with good personal wealth and a personal passion for startups. Eric approaches them and offers them to buy the 20% of RoboCutter for € 44.000, but asking the three friends to subscribe to an acceleration program (the acceleration program asks € 4.00 in cash plus 4% of the startups company).

**Q15: by looking at Eric profile and investment amount would you classify him as**

1. A business Angel
2. A Venture Capital
3. FFF

**Q16: what is the pre-money evaluation of the startup given by Eric ?**

$$44\,000 : 20 = x : 100 \rightarrow 220\,000 - 44\,000 = 176\,000$$

**Q17: what is the post-money evaluation of the startup given by Eric?**

$$44\,000 : 20 = x : 100 \rightarrow 220\,000$$

**Q18: what is the value in € of the acceleration program?**

$$220\,000 : 100 = x : 5 = 11\,000 + 4000 = 15\,000$$

**Q19: Write RoboCutter Cap table after Eric entry and the participation to the Accelerator program**

| <i>Shareholder</i> | <i>Quota%</i> |
|--------------------|---------------|
| Sheila             | 41,25 %       |
| David              | 22,5 %        |
| Mark               | 11,25 %       |
| Eric               | 20%           |
| Accelerator        | 5%            |
| <b>Total</b>       | <b>100%</b>   |

In a few months the cash runs low but RoboCutter idea looks more and more promising. Sheila already presented a demo at a wood cutting equipment fair. Eric introduces the three friends to a Business angel network, where they obtain an investment plan by RCI (part of the Business Angel network), in two steps: a first step of a € 100.000 for the 10% of the company, and a second step of € 100.000 for a further 10%, provided that RoboCutter (a) completes the product and obtains the certifications and (b) the first commercial contract is signed. RCI also requests, at the end of step 2, to cover RoboCutter in a SpA with 200.00 shares, reserving the 10.000 shares for stock options.

**Q20. Write RoboCutter Cap Table after step 1**

| <i>Shareholder</i> | <i>Quota%</i> |
|--------------------|---------------|
| Sheila             | 37,125 %      |
| David              | 20,25 %       |
| Mark               | 10,125 %      |
| Eric               | 18 %          |
| Accelerator        | 4,5 %         |
| RCI                | 10%           |
| <b>Total</b>       | <b>100%</b>   |

**Q21. and after step 2**

| Shareholder   | Quota%      | Shares         |
|---------------|-------------|----------------|
| Sheila        | 30,9375%    | 61.875         |
| David         | 16,875%     | 33.750         |
| Mark          | 8,4375      | 16.875         |
| Eric          | 15%         | 30.000         |
| Accelerator   | 3,75%       | 7.500          |
| RCI           | 20%         | 40.000         |
| Stock Options | 5%          | 10.000         |
| <b>Total</b>  | <b>100%</b> | <b>200.000</b> |

Step2 - se c'è un incremento rifare dallo **step 0**

**Q22. What is RoboCutter value after step2?**

1M  $(200.000 / 0.20) = 1.000.000\$$  con 200.000 = somma degli investimenti in step1 e step2

**Q23. What is value of a single RoboCutter share?**

$1M / 200\ 000 = 5$

RoboCutter does really well and closes very important contracts on the market. RCI and Eric, thanks to their network, approach a Venture Capital firm which is open to give RoboCutter the important funding needed to scale.

Sheila needs to setup a very important pitch to convince the Venture Capital firm to join

**Q24. What kind of pitch would you suggest to setup?**

1. The same pitch that RoboCutter used to convince Eric to join! After all, if it worked with Eric at the beginning of RoboCutter history, why should it fail now?
2. A very numeric pitch dealing with the economic results of the last years and projecting the results of the following 3-5 years, with a very clear forecast of the increase of the number of customers, sales, revenues, EBITDA, a milestone plan and so forth.
3. A very technology-oriented pitch talking about how superior RoboCutter technology is, how it compares to similar products on the market, surpassing all of them.

The Venture Capital firm invests! They buy the 20% of RoboCutter on new stocks for 1.5M€, asking the liquidation preference with full participation.

**Q25. Write the new cap Table (shares only):**

| Shareholder          | Quota%      | Shares         |
|----------------------|-------------|----------------|
| Sheila               | 24,75%      | 61.875         |
| David                | 13,5%       | 33.750         |
| Mark                 | 6,75%       | 16.875         |
| Eric                 | 12%         | 30.000         |
| Accelerator          | 3%          | 7.500          |
| RCI                  | 16%         | 40.000         |
| Stock Options        | 4%          | 10.000         |
| Venture Capital Firm | 20%         | 50.000         |
| <b>Total</b>         | <b>100%</b> | <b>250.000</b> |

**Q26. What is the pre-money value of RoboCutter agreed by the Venture Capital firm?**

$$1,5M:20=x:100 = 7,5 - 1,5 = 6M$$

**Q27. What is the post-money value of RoboCutter agreed by the Venture Capital firm?**

$$1,5M:20=x:100 = 7,5$$

**Q28. What is the value of a single RoboCutter share after the investment?**


$$7,5M - 250\,000 = 30$$

One of the clauses that the Venture Capital firm requested in the investment contract is a Bad Leaver option to Sheila and Davide - if the Bad Leaver clause triggers for one of them, he/she will have to sell all of the shares to the other shareholders at a fixed price of 1€/share.

Unfortunately, after some months since the entry of the VC firm, Sheila experiences a severe health issue and needs to retire



**Q29, Rewrite the Cap Table after this happening (and considering IF the Bad leaver clause applies)**

| Shareholder          | Quota%      | Shares  |
|----------------------|-------------|---|
| Sheila               | 0%          | <del>61.875</del> 0   |
| David                | 17,04 %     | <del>33.750</del>  |
| Mark                 | 10,29 %     | <del>16.875</del>   |
| Eric                 | 15,54 %     | <del>30.000</del>   |
| Accelerator          | 6,54 %      | <del>7.500</del>  |
| RCI                  | 19,54 %     | <del>40.000</del>   |
| Stock Options        | 7,54 %      | <del>10.000</del>   |
| Venture Capital Firm | 23,54 %     | <del>50.000</del>   |
| <b>Total</b>         | <b>100%</b> | <b>250.000</b>  |

After Sheila's departure RoboCutter management starts to become very unclear and the company stalls. Both RCI and the Venture Capital firm find it difficult to hire a CEO with Sheila's vision and capabilities but by chance the Venture Capital firm finds an industry interested to purchase the company and its whole shares for a final global value of 6.7M€

**Q30. Please write the money going to each Shareholder after the sale of RoboCutter**

| Shareholder                      | Money              |
|----------------------------------|--------------------|
| Sheila (you decide based on Q29) |                    |
| David                            |                    |
| Mark                             |                    |
| Eric                             |                    |
| Accelerator                      |                    |
| RCI                              |                    |
| Stock Options                    |                    |
| Venture Capital Firm             | 1,5 M +            |
| <b>Total</b>                     | <b>€ 6.700.000</b> |

