Financial analysis of your start-up company (2)

Seminar «The practice of entrepreneurship»

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Jan Fülscher, lic.oec.publ.

jan.fülscher.ch

Overview

- Modelling your business using the "Business Model Canvas"
  - 09-Oct-2010
  - Introduction: Why, how?
  - Example
  - Recommendations
  - Your own project
  - Discussion

- **Financial analysis of the business Model**
  - **16-Oct-2010**
  - **Introduction, How-to**
  - **Q&A**
  - **Work on your project**

- Financing your startup in switzerland
  - 23-Oct-2010
  - Lecture
  - Discussion

Your benefit

- Can translate a business model into a viable financial model

- Can identify revenue drivers and cost drivers

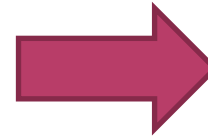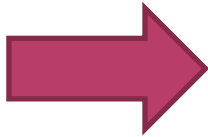- Can draft a financial plan for several years

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Business model and financial model

Cost

Revenue
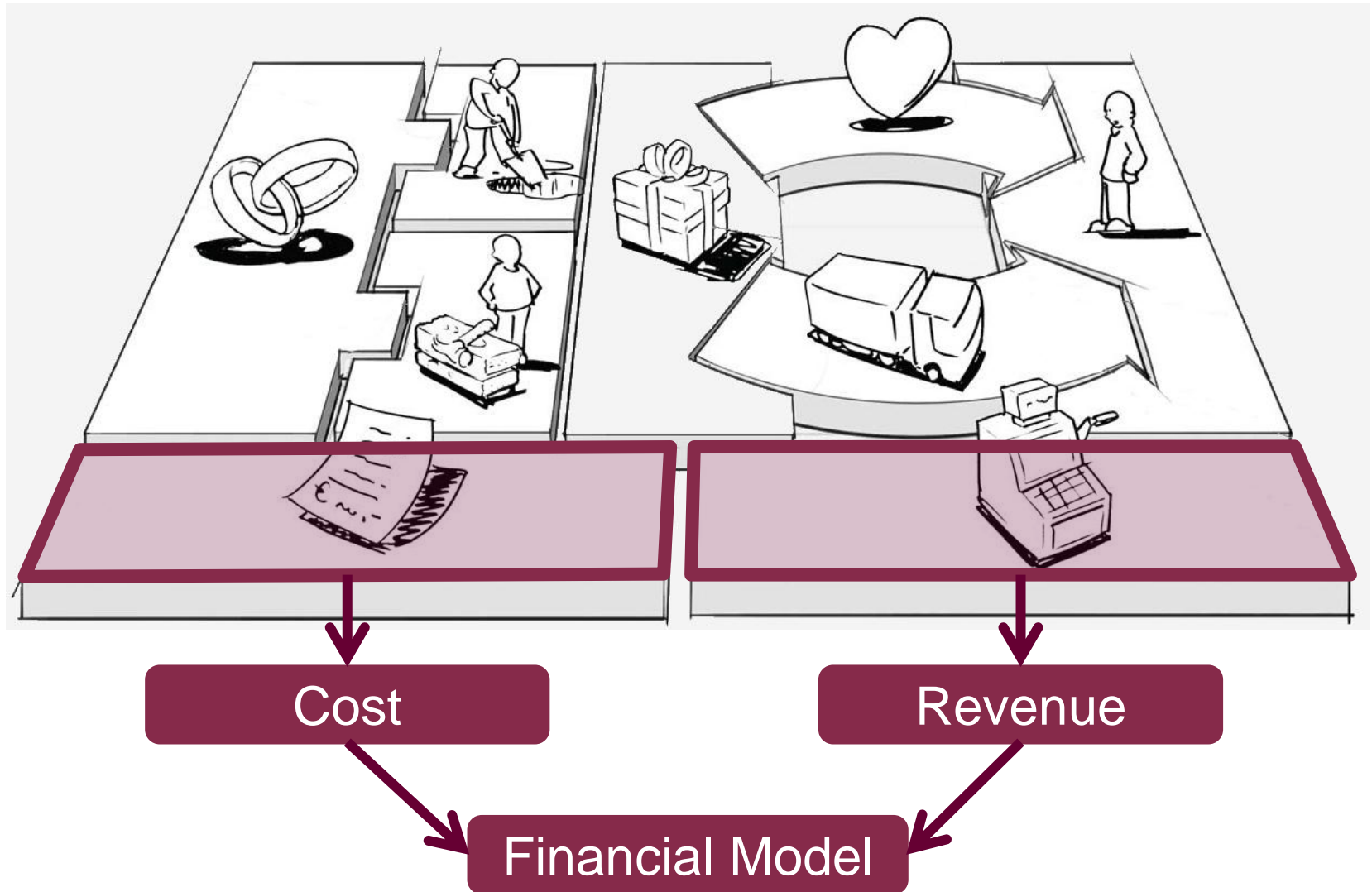
Financial Model

Questions to be answered:

- Earnings needed to cover the running cost?
- Investments required to cover the start-up cost?
- Most profitable business line?
- How and where to optimize costs?
- Return on investment after n years?

Financial mechanics

Investments
Running Costs

?

Revenues

Cost / revenue model: Basics

- Revenue = f(sales)

- Sales = f(cost of marketing, cost of production, cost of logistics, cost of resources, …)

- Profit = Revenue - Σ (cost)

Cost / revenue model: How-to (1)

- What are your **revenue** drivers (RD)?
- Retail shop: area, revenue per m2, location, …
  - Consultant: utilisation, rate, #staff, …
  - Restaurant: consumption per visit, number of visitors per serving, number of places, …
  - Production machine: utilisation, capacity, …
  - …

- **=> Revenue Model**

RD1 →
RD2 → **Revenue generator** → +$$$
RD3 →

Cost / revenue model: How-to (2)

- What are your **cost** drivers (CD)?
  - Retail shop: staff per m2, rent per m2
  - Consultant: salary, expenses
  - Restaurant: staff per place, food and beverage cost, rent
  - Production machine: deprecation, running costs (material, power, …)

- **=> Cost model**

CD1 → | Cost generator | → –$$$
CD2 →
CD3 →

Cost / revenue model: How-to (3)

- Combine revenue / cost models
- Determine profit drivers (PD)
- **=> Profit model**

RD1 →	Revenue generator	→ +$$$
RD2 →		
RD3 →		
CD1 →	Cost generator	→ −$$$
CD2 →		
CD3 →		

PD1

PD2
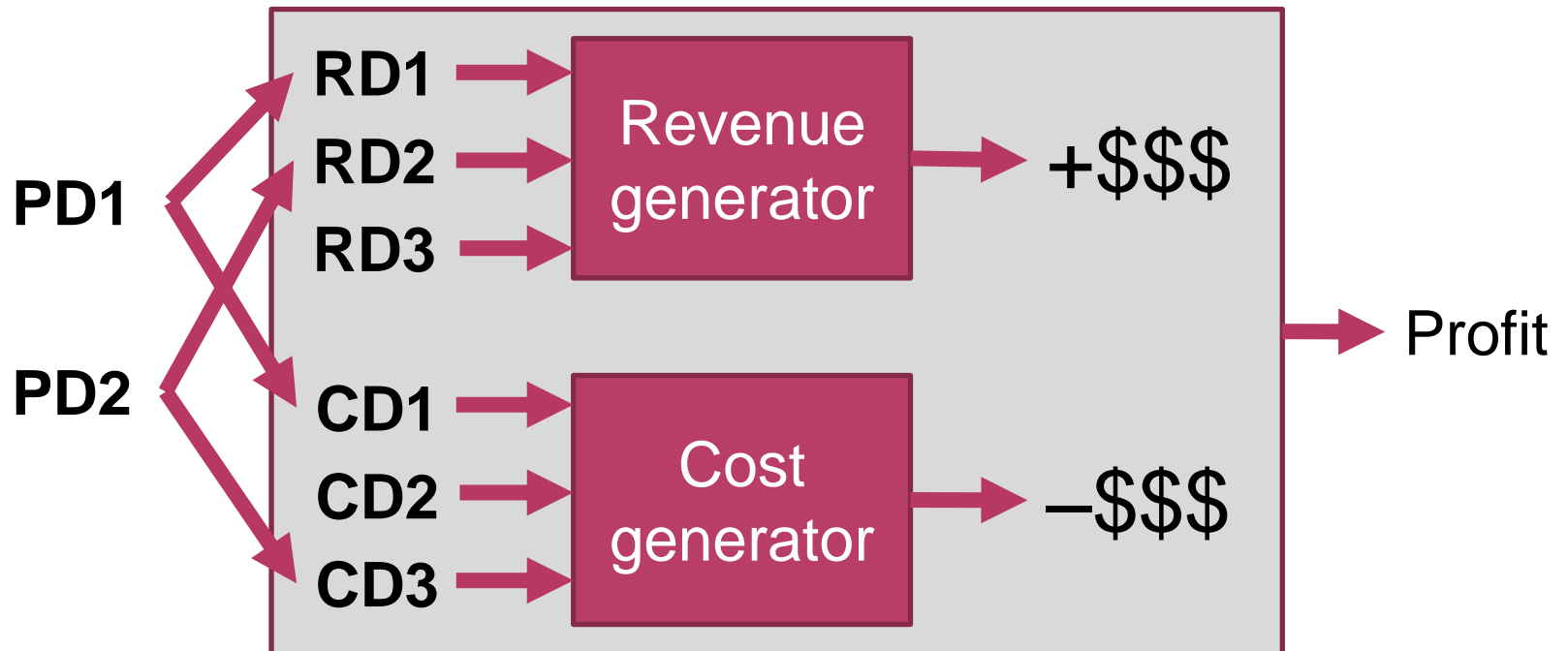
→ Profit

Cost / revenue model: How-to (3): example

- Retail store:
  - Revenue depends on area of the store ("Area"), the cost of the goods ("CoG") and the margin and many others
  - Cost depends on buying cost, area of the store, staff cost and many others
  - **Profit depends on area, cost of goods, margin, …, staff cost, …**
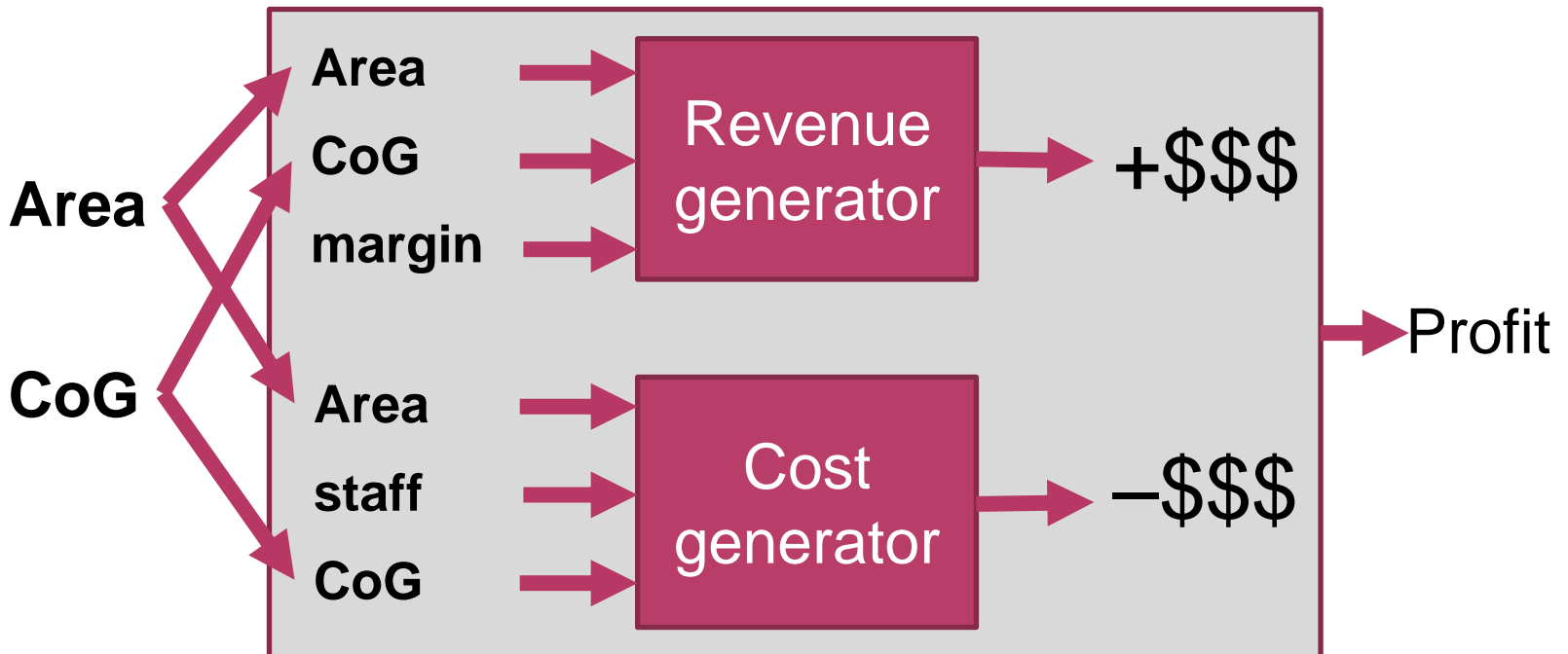
Cost / revenue model: How-to (4)

- Spreadsheet input:
  - Revenue drivers
  - Cost drivers

- Spreadsheet output:
  - + Cash In
  - – Cash Out
  - = Cash Flow

- Information required: **cash flow per time**
  - Time as X-axis in your spread sheet, money in the Y-axis

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Cost / revenue model: How-to (4): example

	20xx-01	20xx-02	20xx-03	…
Area	*300*	*300*	*300*	…
CoG	*320*	*100*	*100*	…
Sales at cost	*80*	*120*	*100*	…
Margin	*100%*	*100%*	*100%*	…
Stock	240	220	220	…
Sales (end user)	160	240	240	…
Staff	*40*	*40*	*40*	…
Cash Out	360	140	140	…
Cash In	160	240	240	…
Free Cash Flow	-200	+100	+100	…
∑Cash Flow (CFCF)	**-200**	**-100**	**0**	…

Requirements for your business plan

- Report for the next three years:
  - Variable key performance indicators
  - # Staff
  - Cash Out
  - Cash In
  - Cash Flow
  - Cumulated Cash Flow = working capital

- Calculate per month, report per quarter

Multiple business models (1)

- One cash flow calculation for each business model

=> Profitability / performance of each business model

=> Portfolio optimization

=> Separate management of each business model

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Multiple business models (2)

+ Cash flow calculation for business model 1

+ Cash flow calculation for business model 2

+ Cash flow calculation for business model 3

– Common cost for all business models

= Cash flow statement for the whole business

Double-check your canvas
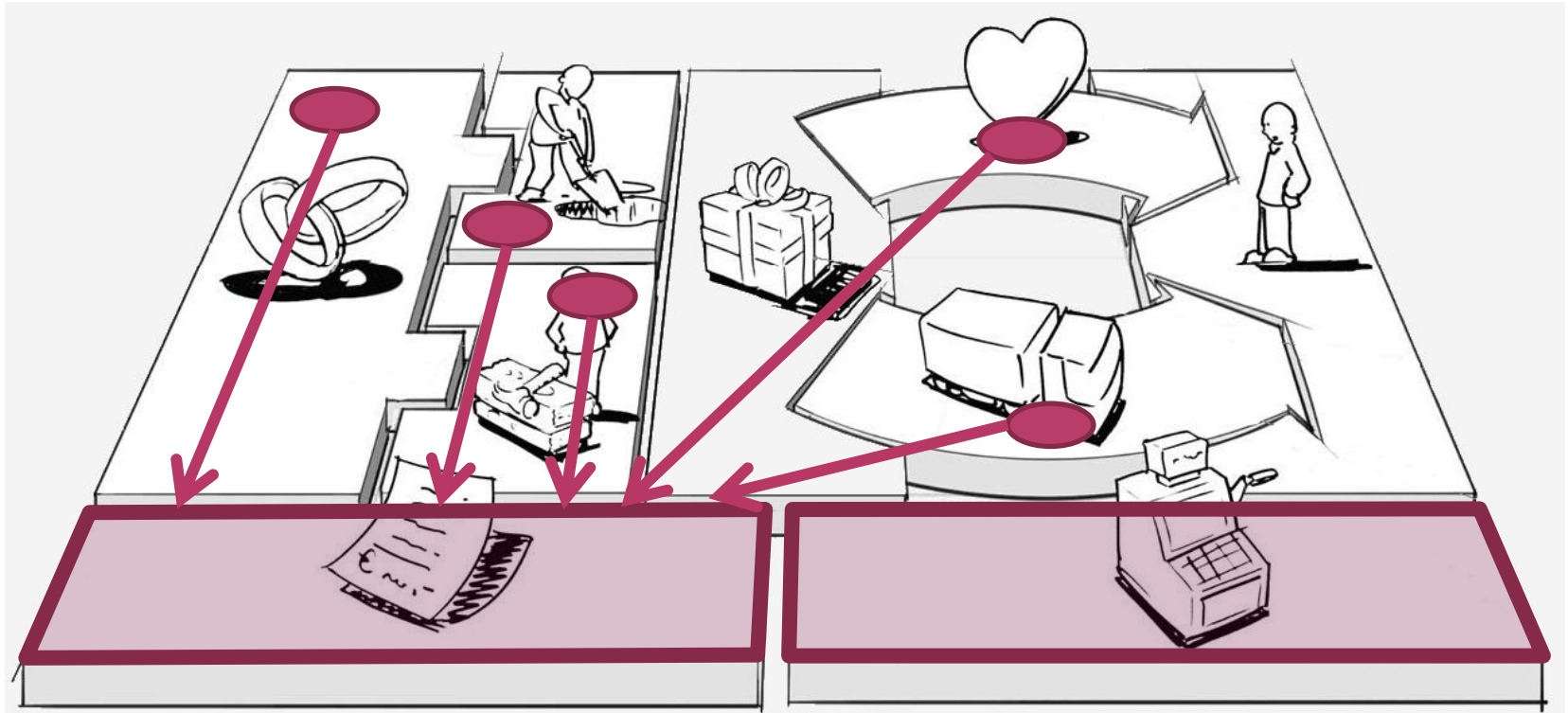
Experiences & advice

- Calculate on a monthly basis, draft business plan on a quarterly basis

- Cumulated free cash flow is **the** key figure
  - o Indicates the investment required
  - o Indicated the ability to pay dividends, payback to investors, …

- Multiple business models need multiple cash flow calculations

Experiences & advice

- Try to link cost to revenues
  - Low revenues => low costs => low risk
  - *But: high revenues => high costs => lower profit*
  - E.g.: pay staff by the hour instead of per month => pay only if needed

- Be flexible with your revenue / cost models
  - Adapt to the situation to minimize your cost
  - E.g.: Some staff on a permanent contract, some paid by the hour => optimization of cost / revenue

- **Talk to industry experts about your revenue, cost drivers**

Experiences & advice (3)

- If you can double the revenue from year to year => great!
  - Faster growth => difficult to believe
  - 4-times-growth: May generate laughter from the investors (prove it with past figures!)

- Costs are usually easier to predict and more accurate than revenues
  - It costs more, takes longer than predicted
  - Investors in their minds often double all costs and times elapsed

- Try to be realistic
  - If you don't have an idea about what's realistic – talk to someone who has the know-how, experience

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Your financial plan

1. Finalize business model(s)
2. Determine revenue drivers
3. Determine cost drivers
4. Develop spreadsheet
   a. Timeline (months)
   b. For each business model:
      i. Revenue drivers and their values over time
      ii. Cost drivers and their values over time
      iii. Total revenues and costs
      iv. Cash flows
      v. Cumulative cash flows
   c. Consolidate all business models, double-check, finalize

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Next steps

- Your business model

- Your financial planning

Limited Q&A: jan@fuelscher.ch

Next time: Where to find money and support (full session)

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