

Designing a value proposition for Statistical Engineering

Working session!

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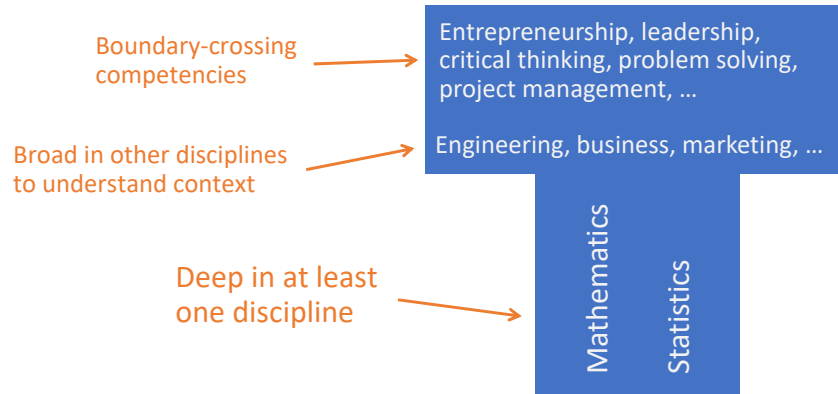
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T-shaped professionals



Course for grad. students:

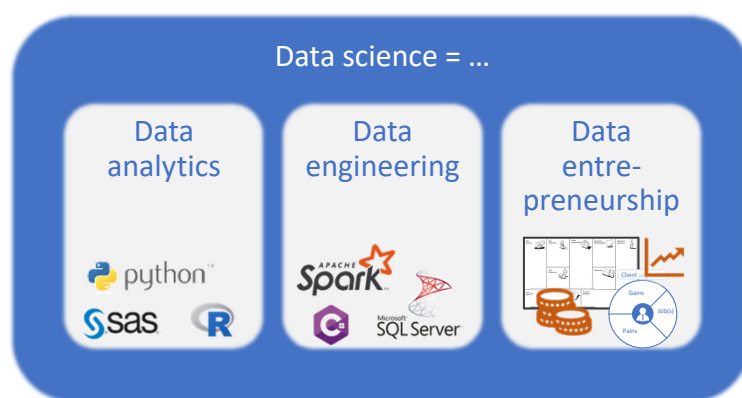
- “Leadership & entrepreneurship for smart mathematicians”



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Analytics & entrepreneurship



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Purpose of this session

- Demonstrate the *Value Proposition Canvas*
 - Originated in the Lean Startup movement
 - Basis for many entrepreneurship courses at business schools
 - “How to sell a good idea to other people?”
- Apply the *Value Proposition Canvas*
 - This is a working session!
- Purpose:
Help us find a convincing position for Statistical Engineering,
 - What value can it bring?
 - To whom?
 - How?



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Selling photography equipment ...

Canon's 600EX-RT Speedlite flash

- Unique built-in wireless system for controlling other flashes using radio waves:
 - Allowing it to control up to five groups of flashes
 - At long distances
 - Under a wide range of light conditions.
- Easy to use:
 - 18 Custom Functions and 7 Personal Functions
 - Color filter holder for attaching third-party color gelatin filters
 - Dot matrix LCD panel and backlit button
 - AF Assist Beam compatible with Canon's new 61-Point High Density Reticular AF
- It is powerful: guidenumber is 60m at ISO 100.
- It is versatile: the zoom head covers a wide range of 20–200mm, can swivel 180 degrees in both directions, and the flash has exceptional weather and dust resistance.



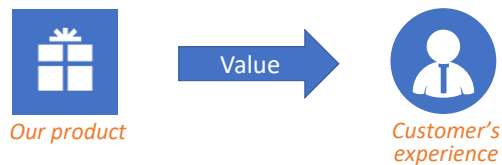
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Value propositions

Value proposition =

Your assumptions about what value your offering brings to the other



Selling a product to other people ...

- Sales rep: "Our product is really powerful!"
- Customer: "I don't care"
- Sales rep: "OK, wait, I'll explain how our product works and what nifty technology it uses, then you'll see how powerful it is!"
- Customer: "I don't care"

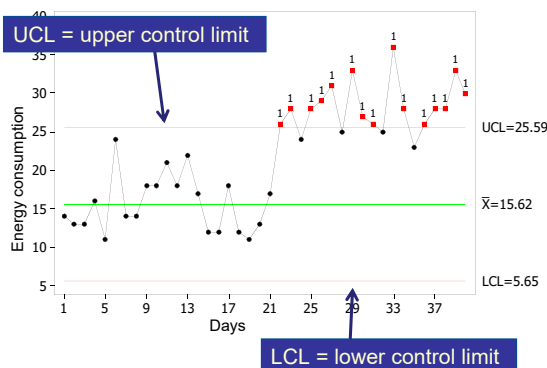
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Selling statistics to industry

Control charts discern between:

- Common-cause variation (noise): the aggregate effect of a large number of small influences
- Special causes (signals), which can be identified and corrected



Typical response:
"Common-cause variation?
Special causes? No, we don't
have that sort of problems in
our company.
I'm not interested."

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Selling Six Sigma to industry

Real-life example 1:

- Winning people's support for a Six Sigma program during an awareness workshop ...
 - "Hello everyone, today I want to show you how powerful the Six Sigma method is. I will demonstrate to you how it works, and I will explain why it is such a powerful method."

Or ...

- "During the preparation of today's workshop, they showed me your company's strategic plan. I read how they want to develop the organization's competencies in the next few years.
- The following ambitions caught my eye:
improve process control skills, results-oriented management, more fact-based and disciplined management decisions.
Do you recognize these ambitions? Do you guys believe in them?
- Today, I want to show you how Six Sigma can help you to realize those ambitions.

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Selling analytics to industry

Real-life example 2:

- Sales pitch at a prospective customer:
 - The consultants working for my firm are very smart professionals. We master state-of-the-art and extremely powerful statistical and analytical tools. Today I want to show you just how smart our consultants are, and just how powerful our methods are.

Or ...

- Preparing for today's meeting, I studied some of your documents. I noted how many of the problems that you're struggling with, revolve around this question:
[brief description of the central issue, quoted in their own words and terminology].
- Do you think I got that right? Is this the central issue?
- Today, I want to present three propositions of how my firm could help you to move forward on this key issue.

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Building value propositions

How to sell an idea to an audience?

- Not: explain how powerful, good, interesting, ..., the idea is
- But:
 - Who's the audience?
 - What sort of things do they want to achieve?
 - What are they struggling with?Show how your idea might help them achieve what they want, or might help them overcome the obstacles.

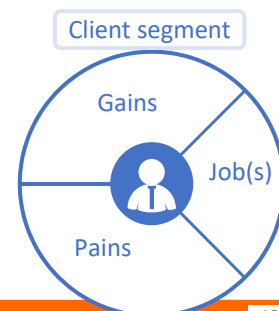
Creating an effective value proposition requires that you invest time in learning about the clients' world and experiences.

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Building value propositions

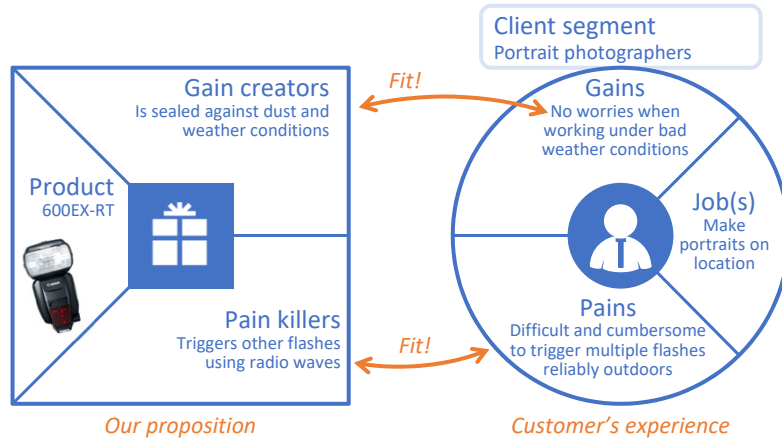
- A good value proposition answers these questions:
 - **Client (segment):** who are your "clients"? Whom are you trying to persuade? Whose support are you seeking?
 - **Jobs:** what are clients trying to accomplish?
 - **Pains:** in trying to get these jobs done, how are clients struggling with current solutions? How does your offering help?
 - **Gains:** do we see opportunities to delight clients or help them achieve things that they don't see themselves yet?



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The value-proposition canvas



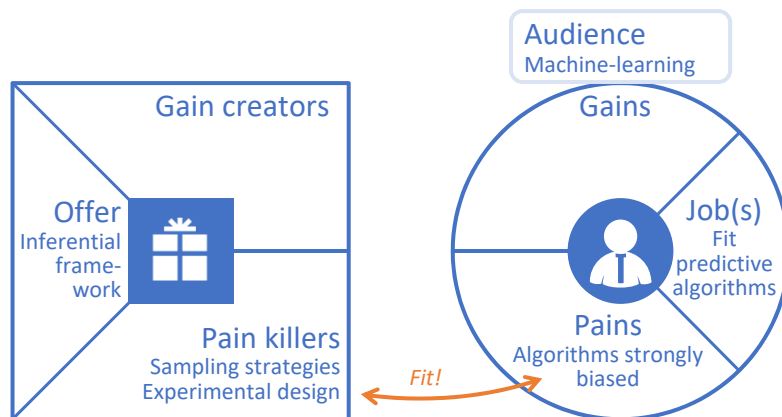
“The 600EX-RT has a wireless triggering system using radio waves. It helps portrait photographers working on location by making it easy and carefree to trigger multiple flashes reliably, both indoors and outdoors.”

“The weather and dust sealing helps photographers working outdoors to do their job even under bad weather conditions.”

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Making a stronger value proposition for SE ...



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Making a stronger value proposition for SE ...

Audience

Machine-learning community

Jobs

Fit predictive algorithms

Pains

Sometimes algorithms are strongly biased

SE offering

Framework for inference

Pain killers

Sampling strategies, experimental design

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Group assignment

Making a stronger value proposition for Statistical Engineering ...

Audience

*What could be an interesting community for SE to address?
(other fields, industries, communities, society, ...)*

Jobs

What are those folks doing? What are they trying to achieve?

Pains

What are they struggling with?

SE offering

What does SE have to offer to help them overcome their pains?

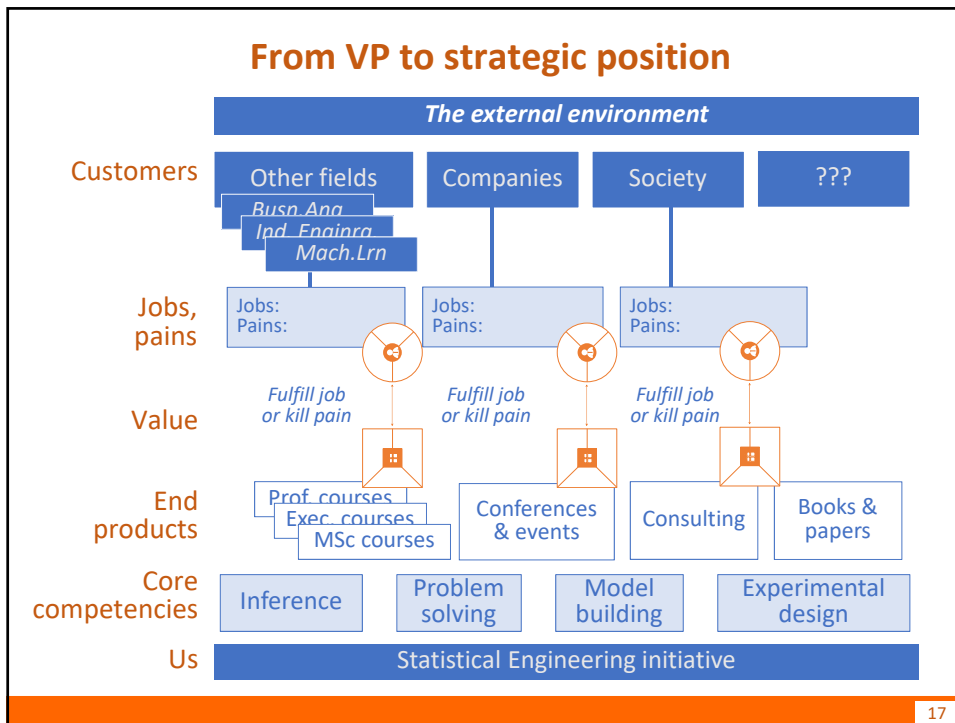
Pain killers

How does SE help them overcome their pains?

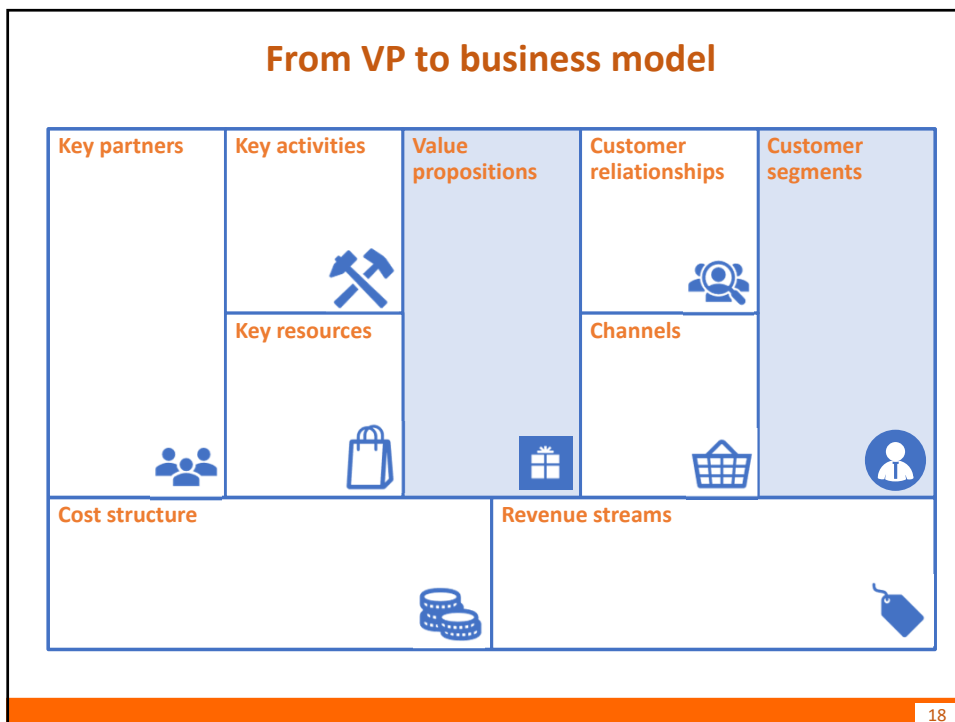
- Groups of 3
- 15 minutes
- Write down on flipover

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Canvases drive entrepreneurship

Canvases are one-page, well-designed formats that capture the essence of complex entrepreneurial skills

- They structure the thinking process
- They facilitate communication
- They facilitate a PDCA-process of assumptions checking

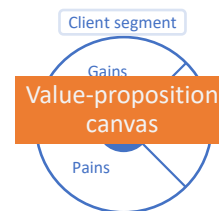
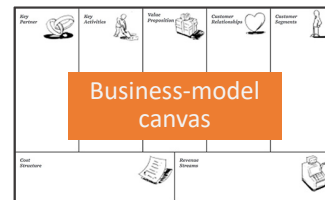


The Pitch Canvas©

Simple Statement of what change you and your product are making in the world.

Pain (+ Gain)	Product
Product Demo	What's Unique
End statement with call to action	
Why You?	

Best 3 minutes



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Where to find these canvases?

- The *Value Proposition Canvas* and *Business Model Canvas* were developed (and are owned) by Alexander Osterwalder (Strategyzer)
 - See: www.strategyzer.com
- The *Pitch Canvas* was developed (and is copyrighter) by David Beckett (Best 3 Minutes)
 - See: best3minutes.com/the-pitch-canvas
- Much of the thinking about modern ways of entrepreneurship were inspired by the book *The Lean Startup* by Eric Ries.

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