Value Propositions: Theory and cases

Episode 11
Let´s practice.
Example 3.
A Sustainable Printer for Estonia

You are learning with the
Spring Saga of the year
From January 22nd to May 24th, 2024.
www.eleonoraescalantestrategy.com

Value Propositions: Theory and Cases.

Outline

1. *Introduction*
2. *The history of Marketing: The background of value propositions*
3. *What is a value proposition?*
4. *Problem solving in the context of value propositions.*
5. *The philosophy behind the Osterwalder Canvas*
6. *Customer profile. Gains. Pains*
7. *Value map. Gain Creators. Pain relievers*
8. *Fit between the Client and the Value Map*
9. *Let´s practice. Example 1. A Global Consumer Packaged Good (CPG)*
   EASTER WEEK HOLIDAY No publication this week (Vacation from the 22nd to 31st March)
10. *Let´s practice. Example 2. A Fast-moving Consumer Good (FMCG)*
11. *Let´s practice: Example 3. A Technological Computer Peripheral Equipment Manufacturing* **Today**
12. ***Let´s practice: Example 4. A Luxury Precious Stone Mining***
13. ***Let´s practice: Example 5. A Global Transportation Services Enterprise***
14. ***Let´s practice: Example 6. A Financial Sector initiative***
15. ***Let´s practice: Example 7. An agriculture-food security product***
16. ***Strategic Reflections about Value Propositions.***
17. ***Summary and conclusions.***

This outline is subject to change if the author considers it appropriate.

Value Propositions: Theory and Cases.

Tentative Schedule Program (subject to change)

Today

Week 1 22-01-24	Week 2 06-02-24	Week 2 09-02-24	Week 3 13-02-24	Week 4 16-02-24	Week 5 23-02-24	Week 6 01-03-24	Week 7 08-03-24
Introduction	The history of Marketing: The background of value propositions	What is a value proposition?	Problem solving in the context of value propositions	Researching & Updating knowledge. No publication today	The philosophy behind the Osterwalder Canvas	Customer profile. Gains. Pains	Value map. Gain Creators. Pain Relievers

This outline is subject to change if the author considers it appropriate.

Value Propositions: Theory and Cases.

Tentative Schedule Program (subject to change)

Today

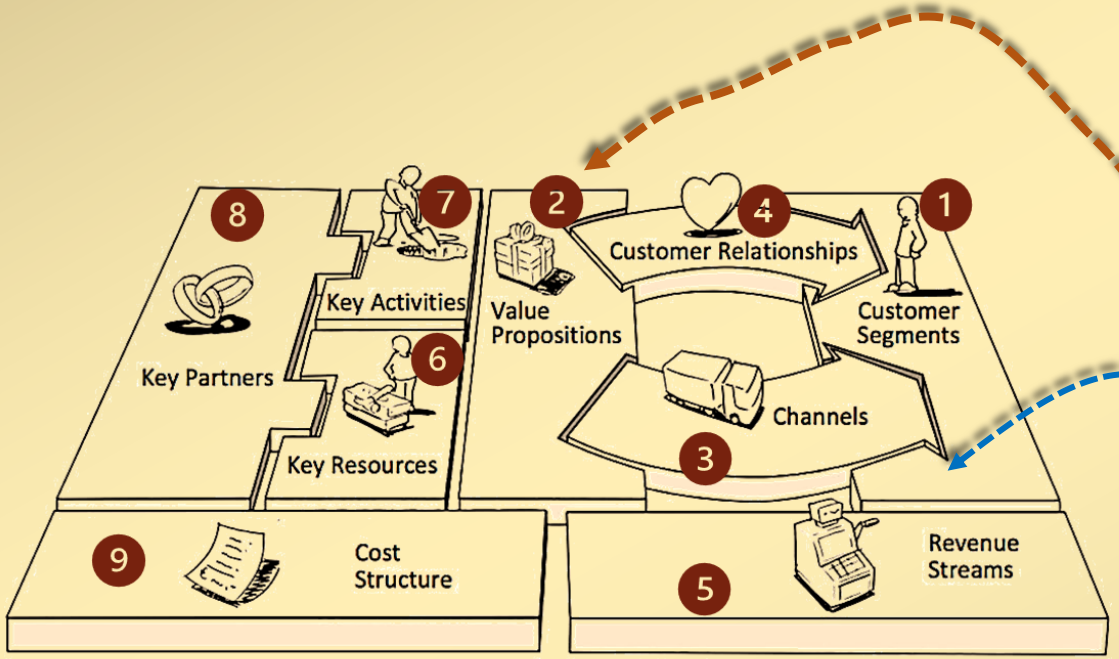
Week 8 15-03-24	Week 9 22-03-24	Easter Week 29-03-24	Week 10 05-04-24	Week 11 12-04-24	Week 12 19-04-24	Week 13 26-04-24	Week 14 03-05-24	Week 15 10-05-24	Week 16 17-05-24	Week17 24-05-24
8 ✓	9 ✓	V ✓	10 ✓	11 ✓	12	13	14	15	16	17
Fit between customers and value map	Let´s Practice. Example 1	Easter Vacations No publication this Friday	Let´s practice. Example 2	Let´s Practice. Example 3	Let´s Practice. Example 4	Let´s Practice. Example 5	Let´s Practice. Example 6	Let´s Practice. Example 7	Strategic Reflections about Value Propositions	Summary and Conclusions

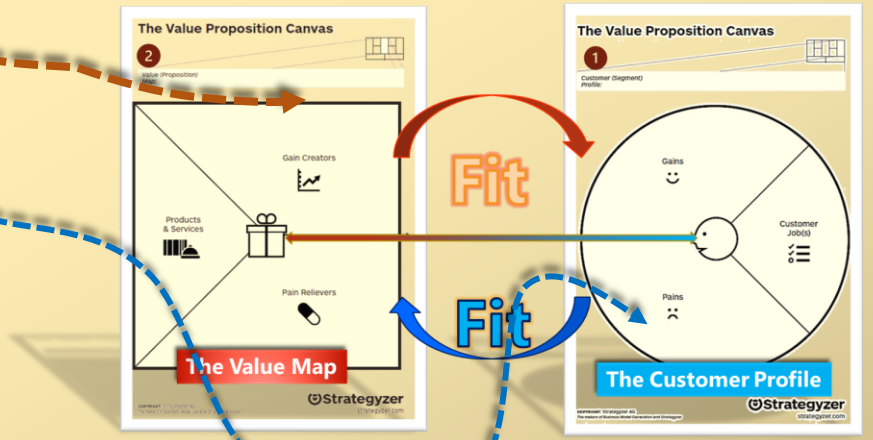
The Summer saga of the year will kick-off as of June 14th, 2024.

Value Propositions: Theory and Cases.

Today is the turn to the practice. Our third example takes us to Estonia

Please remember that we are simply at the initial step of business modeling: building the Customer Value Proposition (CVP)





Source References: See slides 49-50

Value Propositions: Theory and Cases.

The entrepreneurs' squad have contacted us to explore a CVP for a sustainable printer that will be launched in Estonia.

Estonia is a lovely little country of 45,277 sq km with a population of 1.33 million (United Nations data), surrounded by the Baltic Sea, Russia and Latvia.

- The Republic of Estonia established its current state legislation in 1992.
- It is a democracy, that brought our attention because it shows the second GDP per head-capita in Eastern Europe.
- The GDP of Estonia is 38.1 Billion US Dollars (World Bank, 2022)
- It is an export-oriented economy that shifted from a strong agricultural industry to electronics and ICT during the last 20 years.
- In addition, Estonia was hit first by the COVID-19 pandemic, followed by the Ukraine-Russia conflict that has debilitated the country economy since 2020.
- Currently, the Estonian economy is the worst-performing economy in the European Union. Its growth will not reach pre-pandemic numbers until 2028, or the next decade.

Estonia is the country located in the northernmost of the three Baltic States which gained their independence from the USSR (Soviet Union) in 1991.

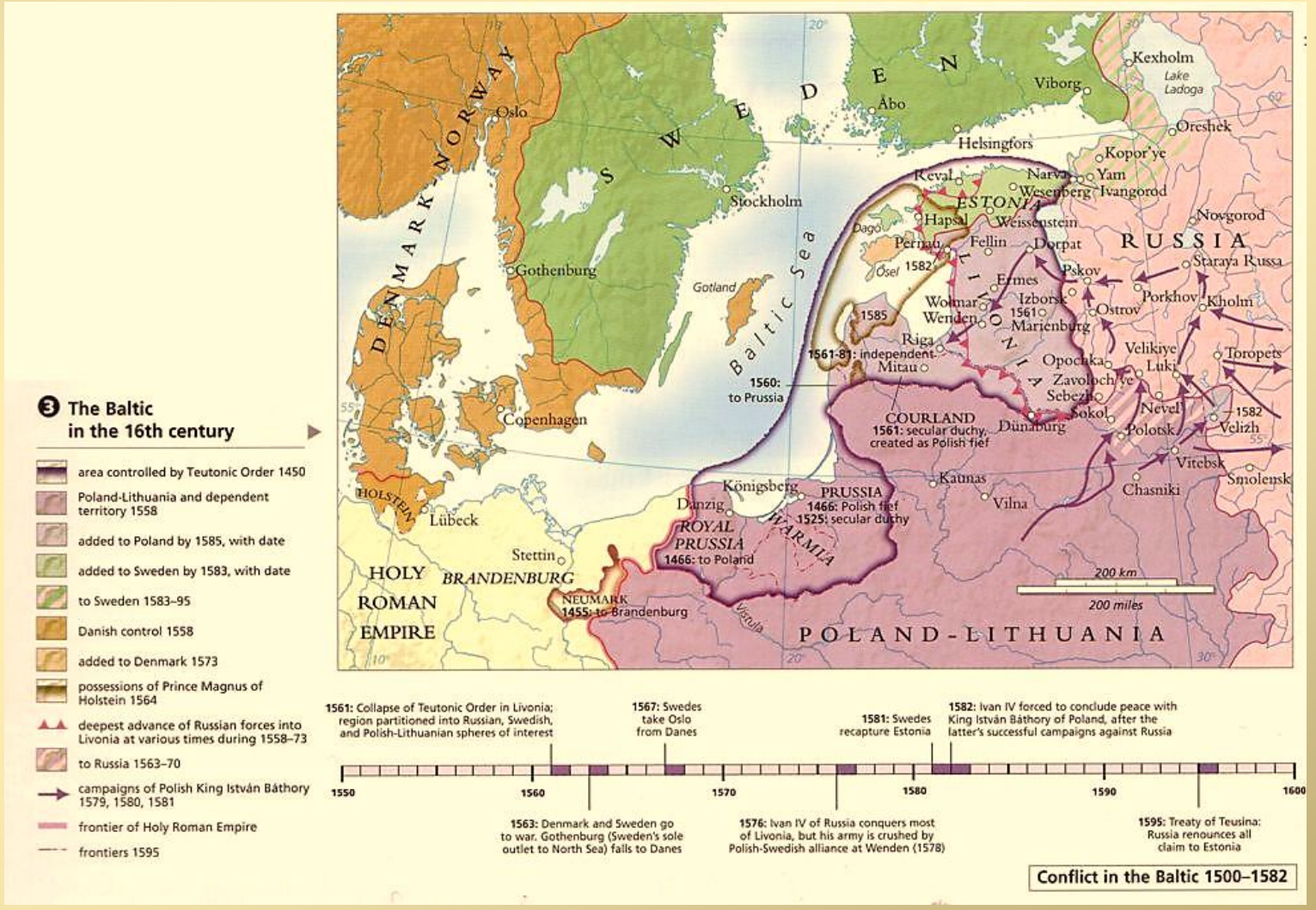
Source References: See slides 49-50

Value Propositions: Theory and Cases.

Our entrepreneurs´ squad are interested to understand why Estonia has a superior level of education.

Let´s look at the situation of the Baltic nations in the 16th century.

Estonia has been under the German Teutonics, under the Russians, the Swedes, the Polish-Lithuanian, and under the Danes.
Centuries of inner conflicts and international wars.
Estonia after 1991 is a new country that is searching for its own motto and core-economy.
It is too soon to replicate their digital venture.
The pandemic and Ukraine-Russia conflict has triggered an economic recession that its digitalization won´t solve.



Source References: See slides 49-50

Value Propositions: Theory and Cases.

The idea to sell sustainable printers in Estonia is not out of mind. Estonia was chosen because of three aspects:

The entrepreneurs believe that the utilization of sustainable printers are the key to maintain the highest levels of learning in the world. They chose Estonia because of (1) its historical roots, (2) its obsessive degree of digitalization, and (3) the quality of its teachers.

First aspect. The historical roots of Estonia.

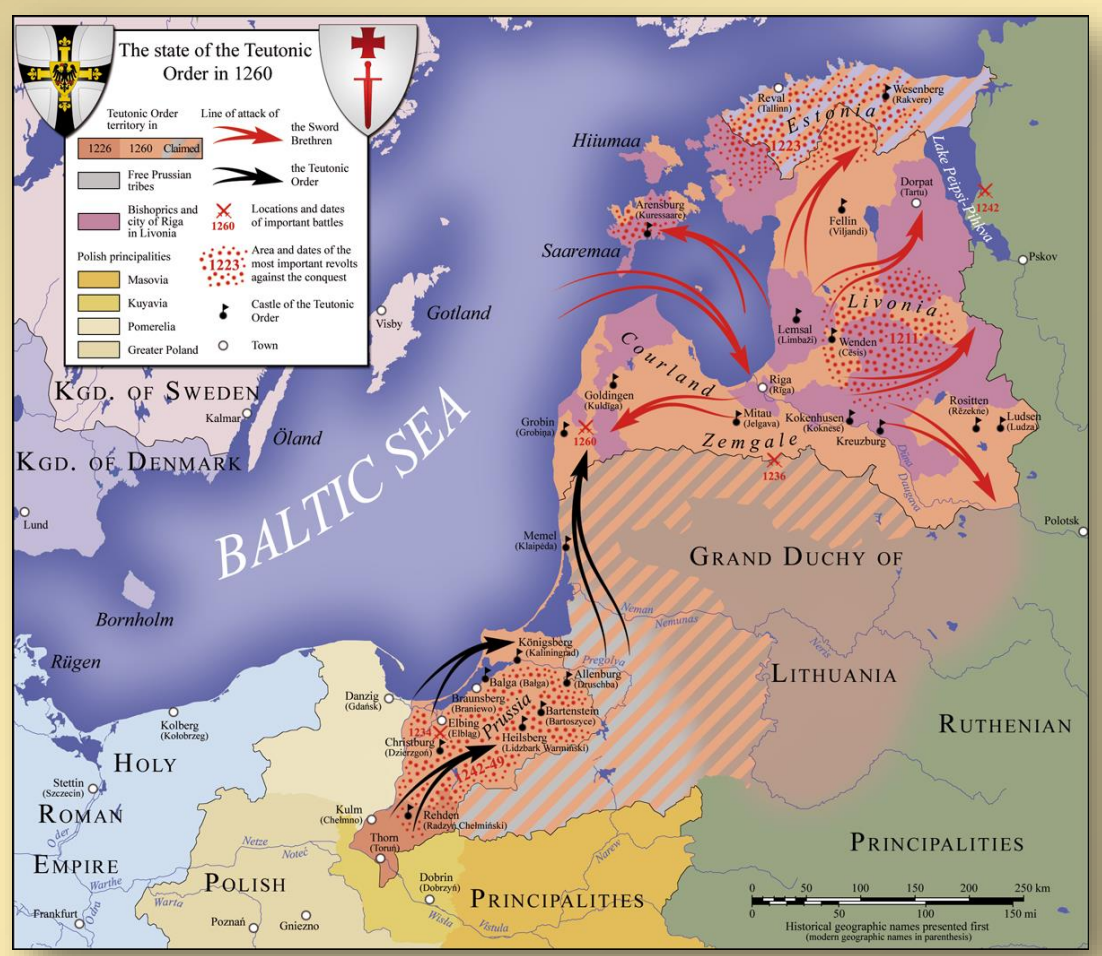
- Estonia´s origins have been tied to the Swedish, Russian and the Danish kingdoms.
- In the 11th and 12th centuries, The Danes, The Swedes and the Russians tried to Christianize Livonia (modern Latvia and Estonia) without success.
- The Livonian Crusade was the conquest of this territory during the pope-sanctioned Northern Crusades, the area inhabited by the Livs, a Finno-Ugric people that lived in that territory.
- It wasn´t until the Third Bishop of Livonia, Albert of Buxhoevden (1165-1229), that he established the Order of the Brothers of the Sword and dedicated the lands of Livonia to the Virgin Mary, calling the region "Terra Mariana".
- Terra Mariana was established as a principality of the Holy Roman Empire and was proclaimed by Pope Innocent III in 1215 as a subject of the Holy See.
- After the success of the crusade, the territory was divided into 6 feudal principalities by Papal Legate William of Modena: Archbishopric of Riga, Bishopric of Courland, Bishopric of Dorpat, Bishopric of Osel-wiek, the Duchy of Estonia (dominated directly by the king of Denmark, and the rest of lands ruled by the Livonian Brothers of the Sword.
- After 1237 the Livonian brothers of the Sword merged into the Teutonic Order of Prussia and became known as the Livonian Order.

Source References: See slides 49-50

Value Propositions: Theory and Cases.

Two of the members of the entrepreneurs´squad have an Estonian heritage. They are committed to their land and wish to go there with a pain reliever: a sustainable printer.

The Teutonic Knights Order are part of the history of Estonia, Livonia, Prussia, Poland and Lithuania.



First aspect. The historical roots of Estonia.

- It is extremely important to go back in time to the history of the place where we will set up our businesses. Nothing will ever go well with our endeavors, if we don't comprehend the ancient times.
- Once the Teutonic Order assumed the control of Livonia; Northern Estonia and the baltic islands were given to Denmark and were kept under Danish rule.
- By 1237, the rest of Livonia was under the Order of the Teutonic Knights of Livonia who organized the Livonian confederation ruled directly by the German Knights. The Danish sold its territories to the Livonian Teutonic Knights in 1346.
- After 1419, the Knights discipline put their lands and their vassals as the dominant estate, by trading grains to most Baltic nations.
- Let´s see the timeline of Livonia-Estonia in the next slide

Source References: See slides 49-50

Value Propositions: Theory and Cases.

Two of the members of the entrepreneurs´squad have an Estonian heritage. They are committed to their land and wish to go there with a pain reliever: a sustainable printer.

Let´s continue exploring the history of Estonia with the following snapshot timeline.

1237

- The Order of Teutonic Knights of Livonia took the leadership
- The King of Denmark landed in Tallinn to control the northern part and the Islands.

1419

- The Teutonic Germans dominated and became the masters of the "Land of the Virgin "for 350 years.
- Estonians, Latvians and Livs became the serfs of the Livonian Knight Order.

1561

- Russia invaded the area to prevent Poland and Lithuania to gain dominance over it.
- Peasant revolts augmented.
- Protestantism caused religious disunity
- Russia disbanded the Livonian Teutonic Order
- Livonia was dismembered between the Russians, Lithuania and Poland

1581

-Sweden seized Northern Estonia (the part that belonged to Denmark before)

-Russians were totally expelled by the Swedes by this time.

1621

- Sweden took the territory of Courland, the northern part (Estonia), and part of Latvia by 1629, expelling the Polish-Lithuanian.
- Sweden kept Livonia for almost a century until 1721.

1721

-After the Great Northern War, Sweden ceded all Livonia territories to Russia by the Peace of Nystad in 1721

-Tsar Alexander I of Russia benefited the Livonian peasants with the right of private property and inheritance, abolishing serfdom. --Many other agrarian laws and reforms followed.

-Improvement in education was remarkable by1886.

-Russian language was made mandatory in education.

1917

- The Russian Revolution during WWI triggered autonomy to Estonia.
- By 1918, with the Treaty of Brest-Litovsk, sovereignty over the Baltic countries was transferred from Russia to Germany and then to Russia again.
- In 1919 Estonia was freed with the help of the British and Finnish

1940

- The USSR took Estonia back
- Under German occupation during WWII
- Russification under the Soviet Union dominion after 1940

1991

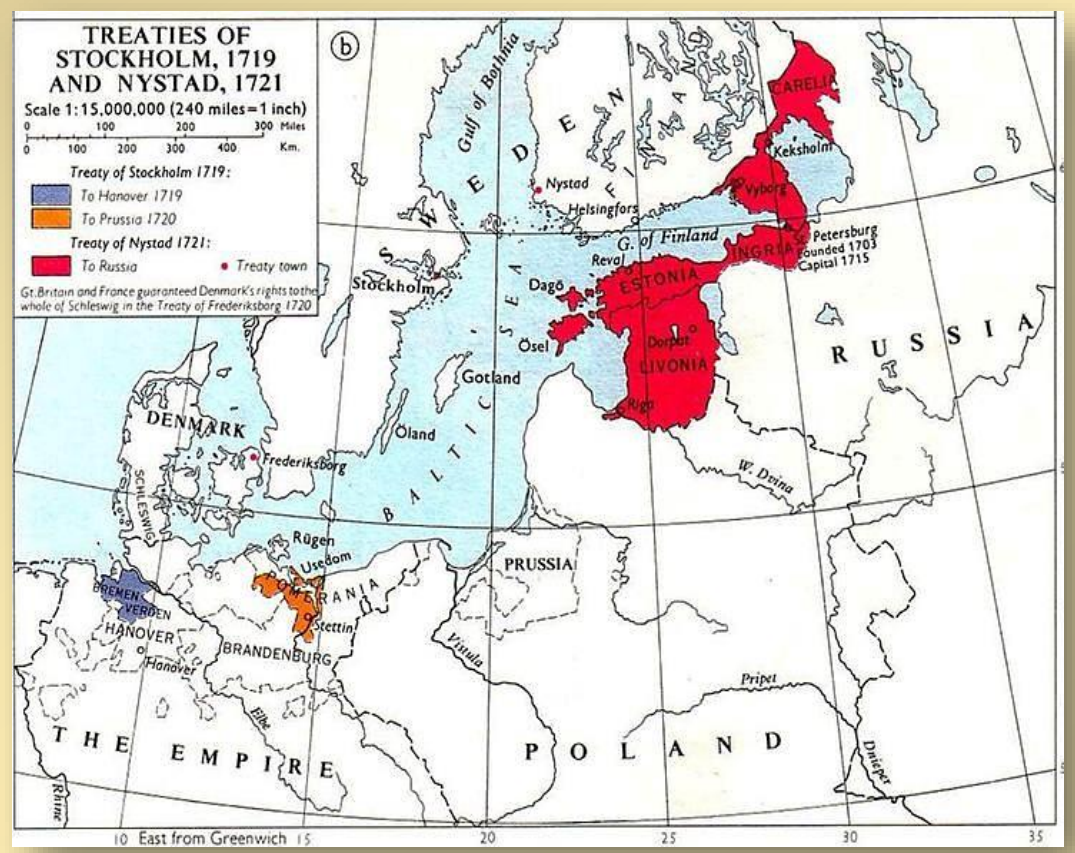
- Independence from the Soviet Union was declared formally in August 1991
- As a new state, Estonia has developed a robust and stable democracy joining the euro zone in 2011.
- In 1999, Estonia joined WTO and then in 2004, the NATO.
- Estonia has continued investing in the quality of professors since the 18th century.

Source References: See slides 49-50

Value Propositions: Theory and Cases.

Our entrepreneurs´ squad are interested to understand why Estonia has a superior level of education.

The high level of education of Estonia is not because of its recent digitalization. When Russia took over Estonia and Livonia in 1721, education was made a priority for the three states within the Russian Empire.



Source References: See slides 49-50

Value Propositions: Theory and Cases.

The idea to sell sustainable printers in Estonia is not out of mind. Estonia started a digitalization process more than 25 years ago.

If the entrepreneurs´squad wish to sell sustainable printers, Estonia is the first place to go.

Second Aspect. Current Obsessive Digitalization

- Estonia (e-Estonia) is the world's only fully government digitalized nation, where almost 100% percent of all public services are online, from IDs to education to healthcare
- The level of digitalization of Estonia is convened as an extreme one over the world and everything started in 1997. It took them around 25 years. The COVID-19 pandemic forced the teachers of Estonia (who are considered as the best of the world) to accept digital procedures in education that they never used in the past. Estonia Teachers know by heart that certain digital things are not convenient when learning. They use digital tools with limits.
- The success of Estonia education has never relied on digital skills "only" but in the excellent quality of professors.

Timeline

Milestones of Estonia becoming the world's most developed digital society

1997	2002	2005	2008	2014
E-GOVERNANCE	**DIGITAL ID**	**I-VOTING**	**E-HEALTH**	**E-RESIDENCY**
E-services are launched; 99 per cent of public services are now available as e-services	Rollout of a mandatory national ID card that provides digital access to all secure e-services	Estonia becomes first nation in history to offer internet voting in a national election	Patient health data made available online; 95 per cent of data generated by hospitals/doctors is now digitised	Transnational digital ID for access to public e-services; e-residents can establish/manage an EU business remotely

Source References: See slides 49-50

Value Propositions: Theory and Cases.

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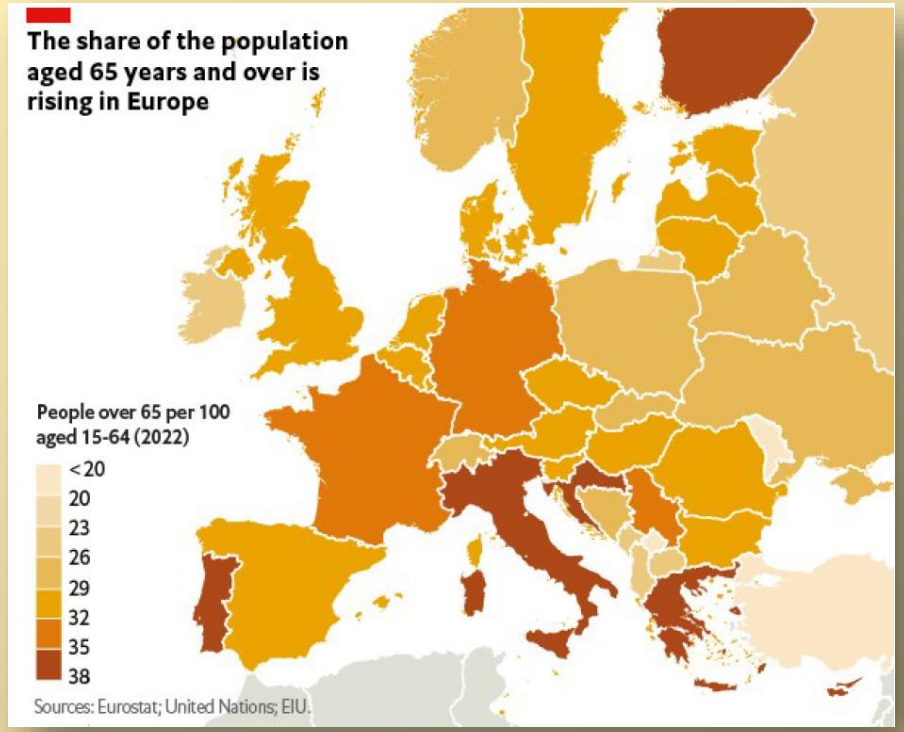
Second Aspect.
Current Obsessive Digitalization in the middle of a depopulation crisis in Europe

- In Estonia, according to a current measuring project of the digital tools applied to education, called the Estonian DigiEfekt project, most Estonian students did not prefer digital learning in comparison to face-to-face or paper-based activities
- The world most advanced digital economy is not well educated because of its digitalization, but because it holds more than 200 years of education development above the rest of European countries.
- The public education in Estonia is by far much better than the Private one.
- The digitalization has solved a problem of efficiency in the government, and it also has given a response to the lack of Estonian people, given its aged population.
- Let´s see the European demographic crisis in numbers: around 30% of Estonia is 65 years old and older
- Since 1950, the median age of the population has increased.



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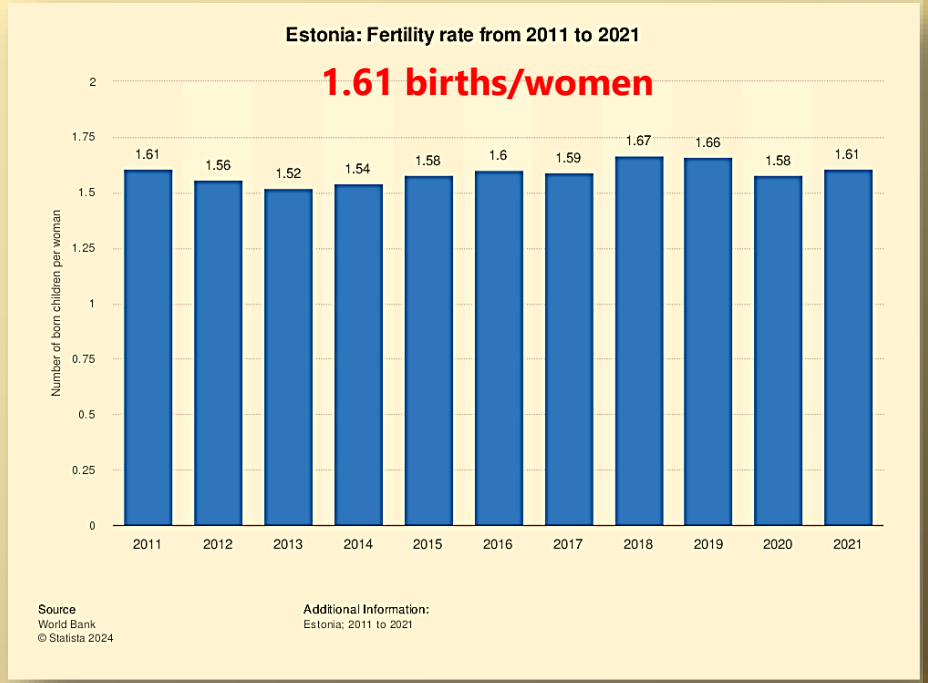
Second Aspect.
In Estonia, the digitalization answers other depopulation aspects.

- Europe faces a demographic crisis: On average the EU fertility rate is 1.8 birth per woman.
- Estonia´s demographic loss since 2011 remains below the European Union with an average fertility rate of 1.61 births/woman.
- The Population decline in Estonia is also an issue: there exists a reduction of the population between 15 to 64 years, meanwhile those above 65 years have increased by 3% in the last 10 years.
- Over the past 20 years, the depopulation of young people has been a priority issue, clearly seen by the number of pupils per teachers.
- Estonia holds one teacher for every 12 students, compared to 20 pupils per professor 20 years ago (2001).
- Estonian students have benefited from this demographic shift: Estonia treat teachers as professionals, and teachers act that way as well.
- Teachers have time to prepare lessons and learn from their peers.
- The teachers lead classroom instruction. The advancement of teachers is measured in the results of the students.
- Students have higher expectations of teachers, and teachers raise their own high standards year over year.



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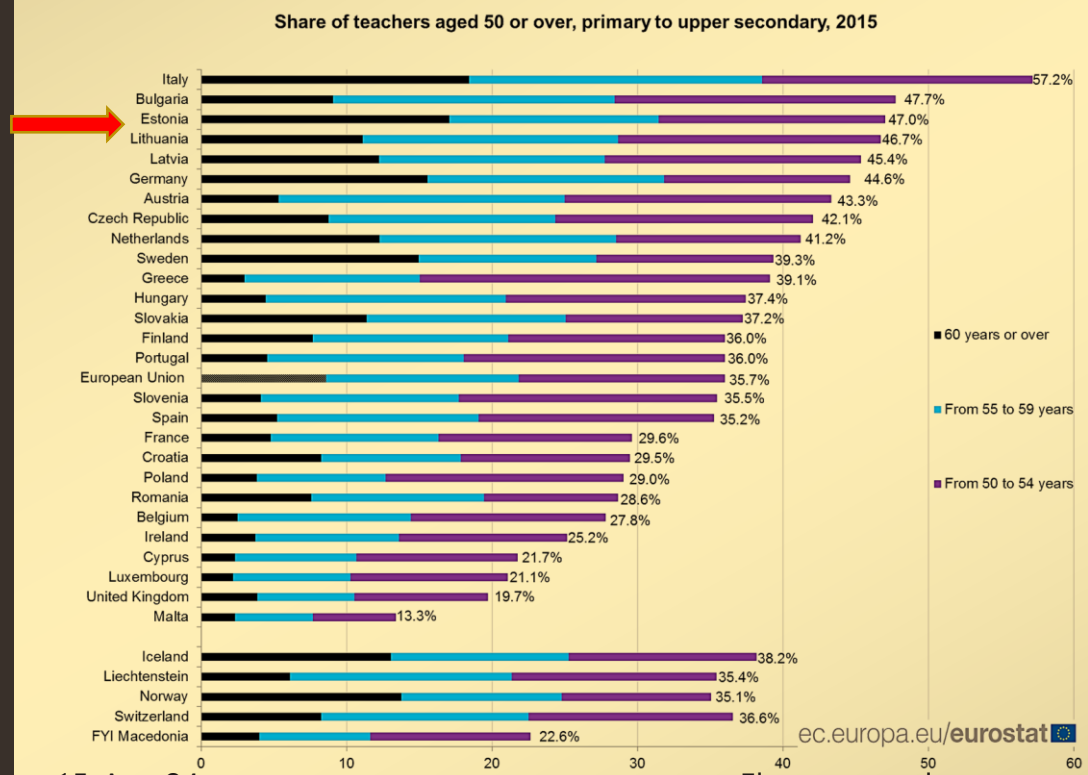
Third Aspect.
In Estonia, the teachers discern when to stop digital in Education. The excellent quality of the teachers is remarkable.



- Estonia´s education system dates to the 13th century. The first monastic schools were founded by the Order of the Brothers of the Sword.
- The oldest university is the University of Tartu which was established by the Swedish king Gustav II Adolf in 1632, in the century of the Swedes domination of Estonia.
- Regardless the political instability of Estonia under the USSR, Estonia benefited with Education, because one of the most characteristic features of the Soviet system was to ignite higher education for free at Universities, and Estonia powerful educational system was state financed and free of tuition fees.
- Despite the Soviet restrictions to the Western, the infiltration of Western educational ideas, especially from Finland, took place and had an enormous impact on the reorganization of the Estonian system of general education after the restoration of independence 1991.
- Estonia has good outcomes with education, because Estonia´s teaching force is one of the oldest and traditional in the EU. IT is not because of digitalization.
- 47% of all K-12 professors in Estonia are above 47 years old, and they have led and have kept the higher standards at the top.
- Estonia´s key success factor in education is founded in the old professors with traditional backgrounds. Not in the digital.

Source References: See slides 49-50

Value Propositions: Theory and Cases.

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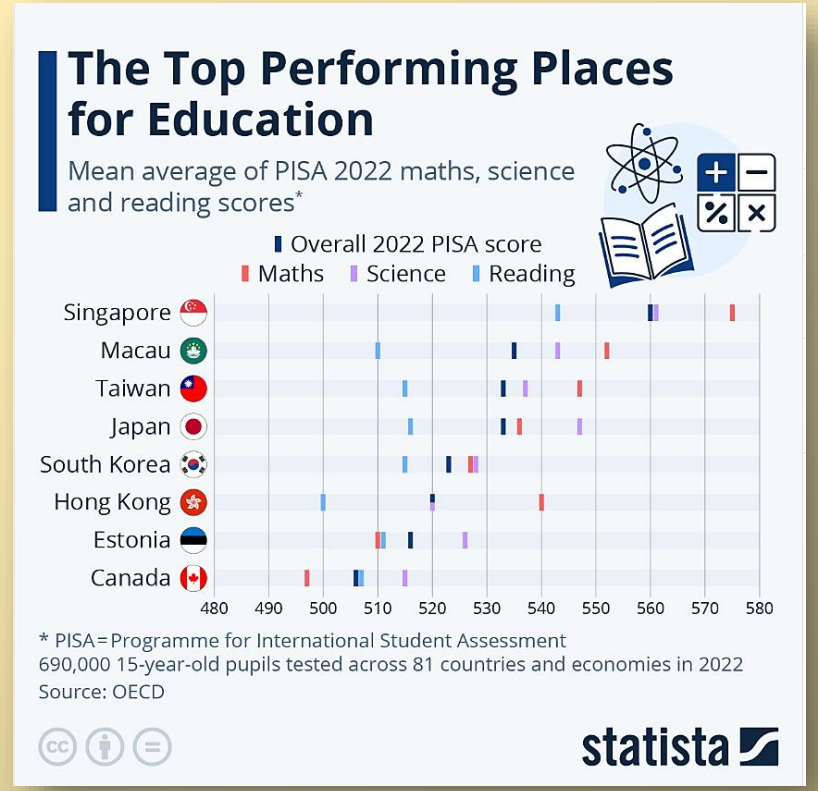
Third Aspect.
When students are successful, this is because of the teachers. No digital tool will ever replace an excellent teacher.

- The Programme for International Student Assessment (PISA) powered by the OECD assesses the knowledge and skills of 15-year-old students in mathematics, reading and science.
- The three tests explore how well students can solve complex problems, think critically and communicate effectively. This gives insights into how well education systems are preparing students for real life challenges and future success.
- Estonia participated for the first time in PISA in 2006. The tests are scheduled every 3 years, and Estonia has been participating in the PISA for 6 times since then.
- In the European Union, Estonia PISA results are way above the rest of the European Union countries, particularly in the Science tests.
- In Estonia, Japan and Singapore, half of the poorest students are bright and show the highest scores of all.
- Estonia utilizes pre-K12 or the early-years education to prepare children for first grade, through play-based learning, focusing on social skills and exploring the natural learning environment.
- Schools in Estonia enjoy quite extended autonomy. The national curriculum leaves space for the school to develop their own curriculum.



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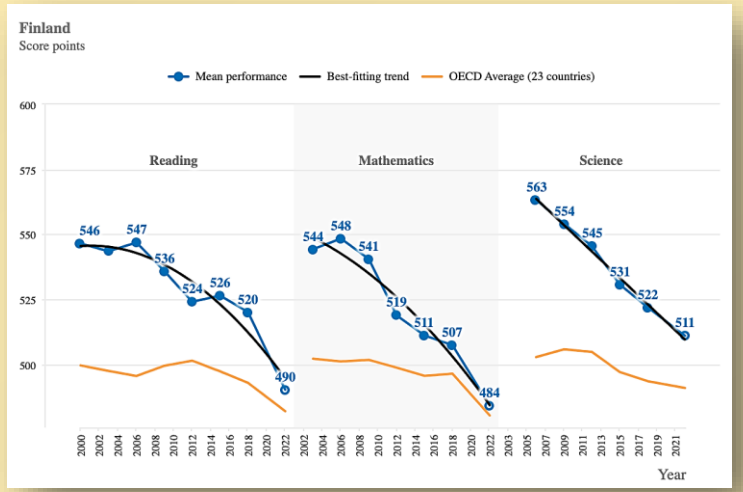
Value Propositions: Theory and Cases.

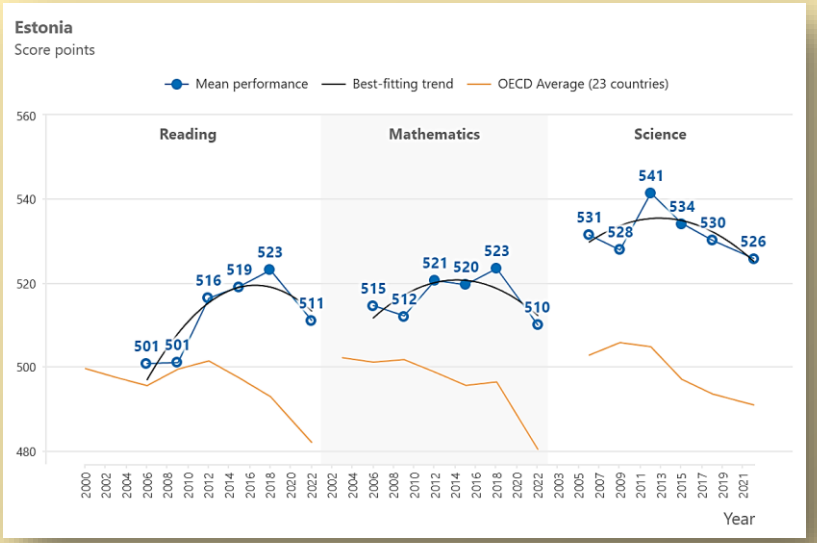
The idea to sell sustainable printers in Estonia is not out of mind.

If the entrepreneurs´ squad wish to sell sustainable printers, Estonia is the first place to go.

Third Aspect.
Digitalization after the COVID-19 pandemic has affected the PISA scores of Estonia too.

- Look at the OECD PISA results of Estonia in Reading, Mathematics and Science. You can observe that the last scores (of 2022) are not going up. Something has affected the youth.
- In addition, Finlandia which was the top performer of the European Union in 2006, has fallen in its results during the last 10 years. And we certainly believe it is too much of digital education.
- Watch Finland PISA results year-over-year below:





- Look at the OECD PISA results of Finland. Finland PISA scores were better before the adoption of excessive technologies in the classrooms.
  And the trend is similar (worst in math), in every of the OECD countries.

Source References: See slides 49-50

Value Propositions: Theory and Cases.

The idea to sell sustainable printers in Estonia is not out of mind.

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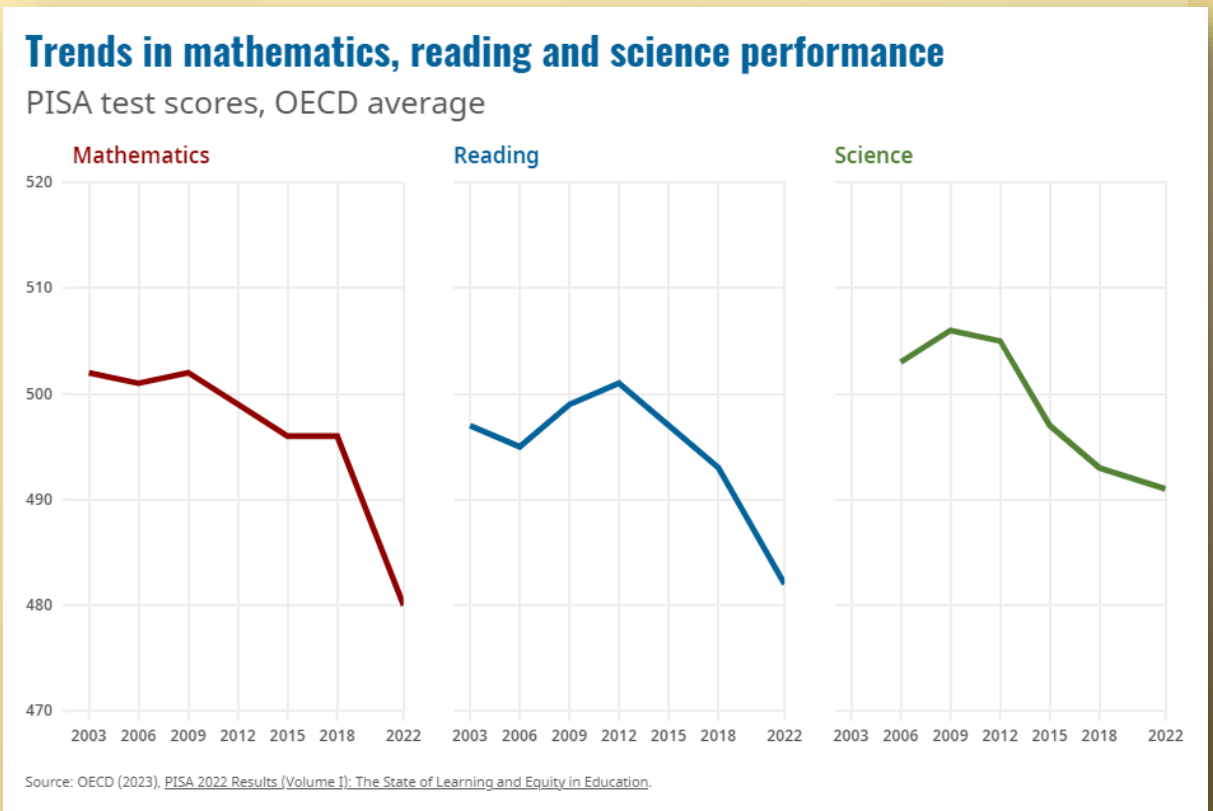
Third Aspect.
More digitalization after the COVID-19 pandemic has affected the PISA scores of Estonia too.

- According to a working paper published by ISEAK, this study reveals that even in the most advanced countries, in terms of ICT integration at school—such as Finland or Estonia—the students who belong to a very intensive frequency users experiences in technology reflected a significant penalty in terms of their performance in PISA mathematics (this study was written before the Pandemic 2019), while the low and medium ICT user status is related to better results than the very low user status.
- On average the trends were going down before the pandemic.
- Something is happening? We believe it is excessive utilization of digital devices.

In conclusion, it seems that teenagers of the OECD countries are being affected by digitalization and digital over-excessive time since 2012. The pandemic forced schools to use digital/internet tools, that triggered worst PISA scores than ever.

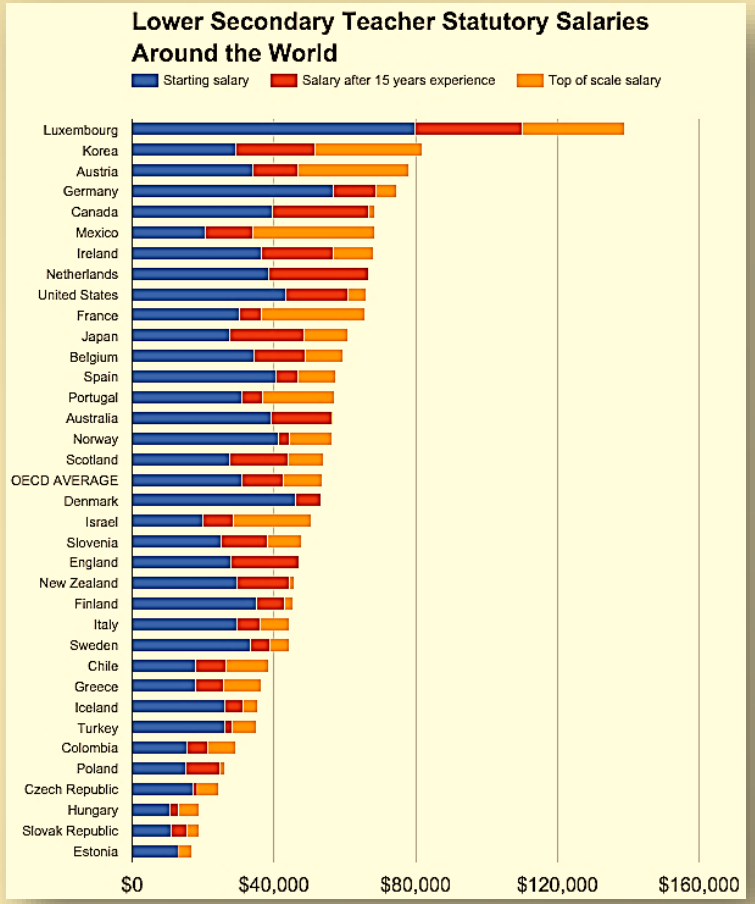


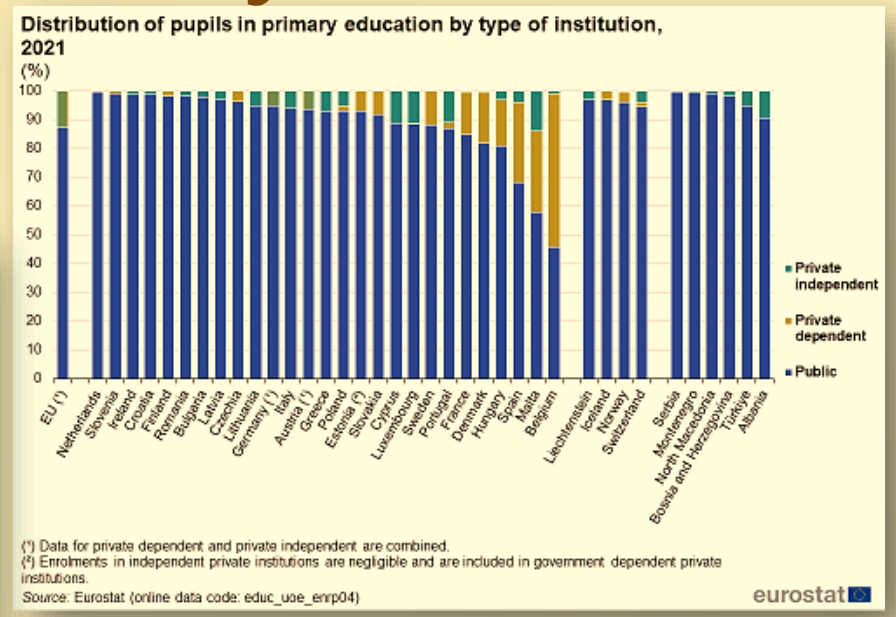
Source References: See slides 49-50

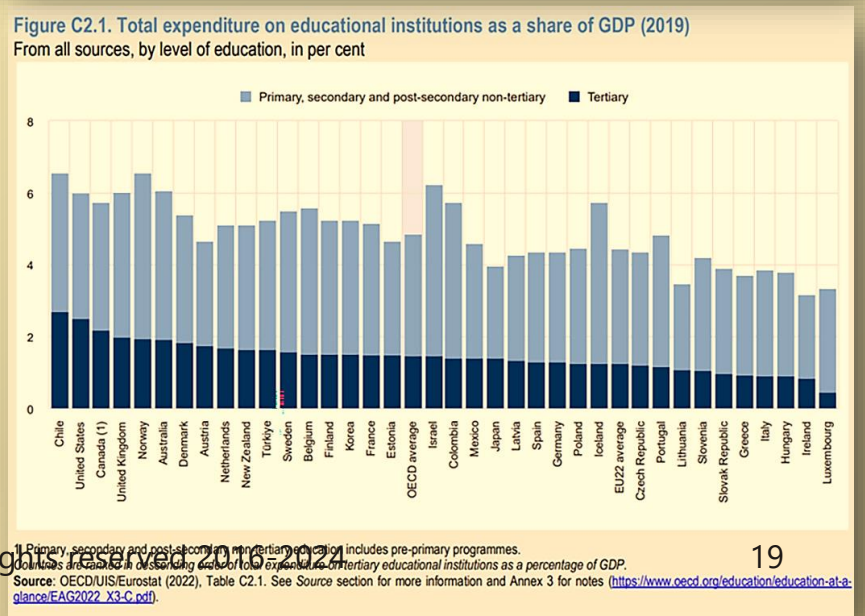
Value Propositions: Theory and Cases.

Our entrepreneurs aspiration is to start with the Estonia education system. Their future clients: the professors of Estonia

- The professors of Estonia are not paid well in comparison to other OECD countries.
- Estonia holds around 95% of students (primary education) in public institutions (2021)
- The total expenditure on educational entities is around 5% (2019)







Source References: See slides 49-50

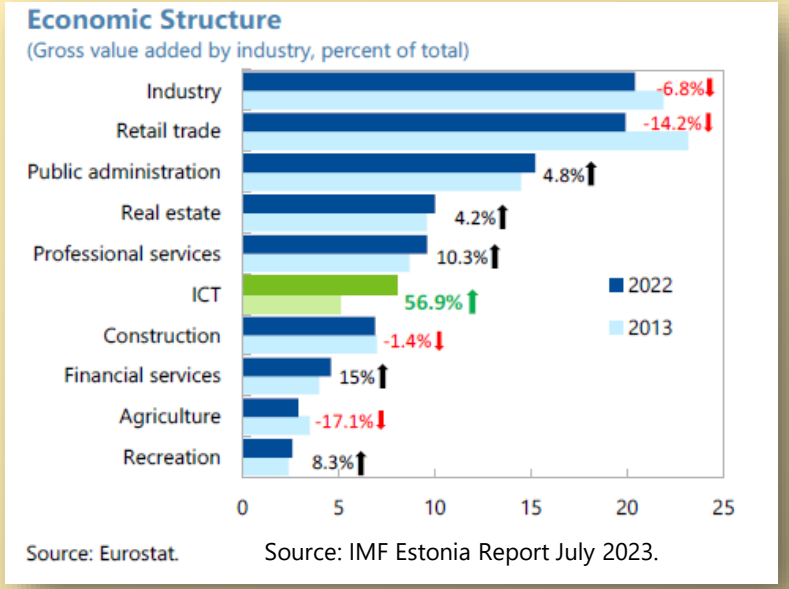
Value Propositions: Theory and Cases.

Our entrepreneurs aspiration: to sell sustainable printers in the most digitalized country of Europe.

If the entrepreneurs´ squad wish to sell sustainable printers, Estonia is the first place to go.

The teachers of Estonia (elders and youngers) would be suitable to provide the stamp of approval for our sustainable printer technology. Let´s see…

The ISEAK study revealed that the very intensive use of ICT (information and communications technologies) at school causes an underperformance of students equivalent to around half an academic course in Estonia, Finland and Spain.
The same study states that the problem is the excessive or wrong application of digital tech. Digital technology, when implemented skillfully by educators, has the potential to create a powerful and engaging environment for collaborative and creative learning). However, in absence of a well-founded pedagogical strategy, the use of digital technology at school risks that individuals lag behind.
Additionally, the study reveals that even in the most advanced countries in terms of ICT integration at school—such as Finland or Estonia—the group of very intensive frequency users experiences a significant penalty in terms of their performance in mathematics, while the low and medium ICT user status is related to better results than the very low user status.
In consequence: the issue is the wrong digital pedagogy and the null or excessive utilization of ICT tools. The best alternative option is to be situated in the middle. In one phrase: a balanced point.
Eleonora Escalante Strategy recommends a healthy 20% digital, 80% traditional.
The sustainable printers might be a strategy to balance the education. By using printed material, instead of screen AI powered activities, we are counterbalancing the excessive or very intensive frequency user experiences in Education.



Estonia Economic Structure clearly shows that employees are moving from Agriculture, Retail Trade, Industry and Construction to the ICT sector…
In Estonia, it increased in 56.9% from 2013 to 2022.

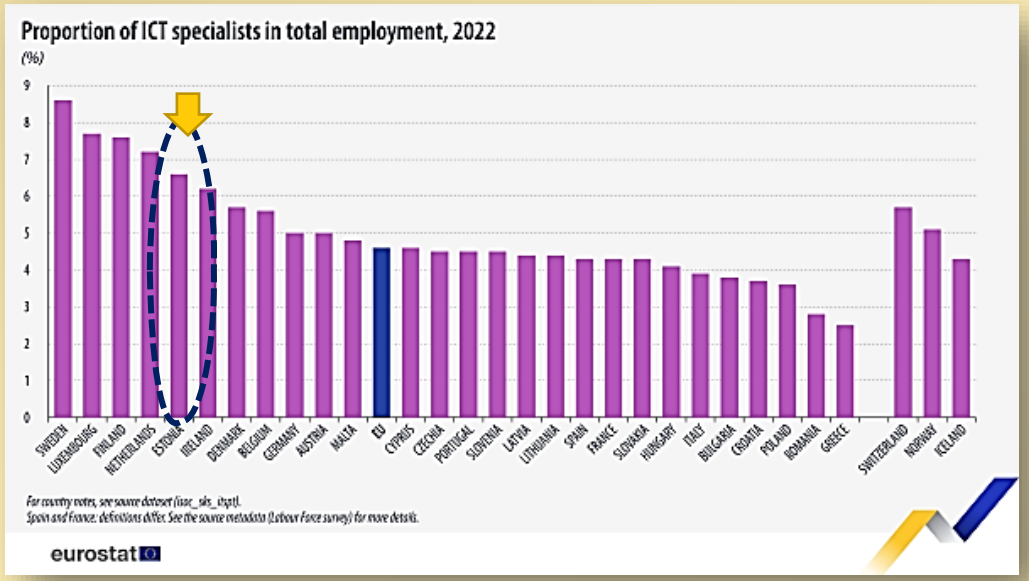
Source References: See slides 49-50

Value Propositions: Theory and Cases.

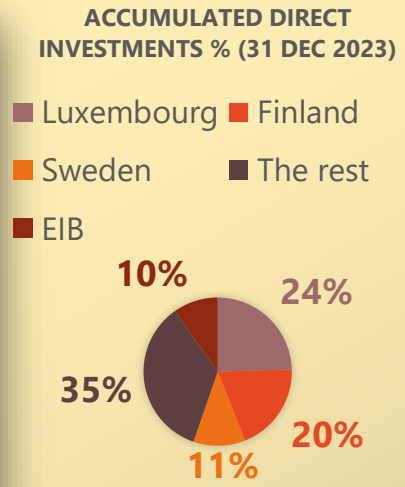
Our entrepreneurs aspiration: to sell sustainable printers in the most digitalized country of Europe.

If the entrepreneurs´ squad wish to sell sustainable printers, Estonia is the first place to go.

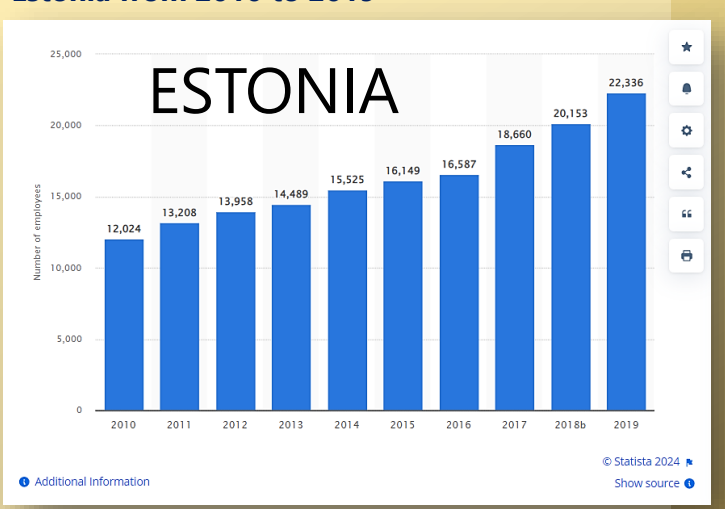
The teachers of Estonia are Smart enough to discern why are they digitalizing their students. Estonia´s owners (and respective political leaders) have bet for the ICT sector 25 years ago. And Sweden is leading the shift.



From 2012 to 2022, the number of ICT specialists in the EU increased by 57.8 %, almost 7 times as much as the increase (8.8 %) for total employment.



Total number of employees in the information and communication technology (ICT) services sector in Estonia from 2010 to 2019



- Luxembourg, Finland and Sweden are the top Foreign Direct Investment countries in Estonia.
- Sweden has an accumulated direct investment position of 4.2 billion (31 dec 2023)
- The European Investment Bank Group (EIB) has invested more than €3.65 billion in various Estonian projects since 1993
- Data from Eesti Pank (Bank of Estonia).

Source References: See slides 49-50

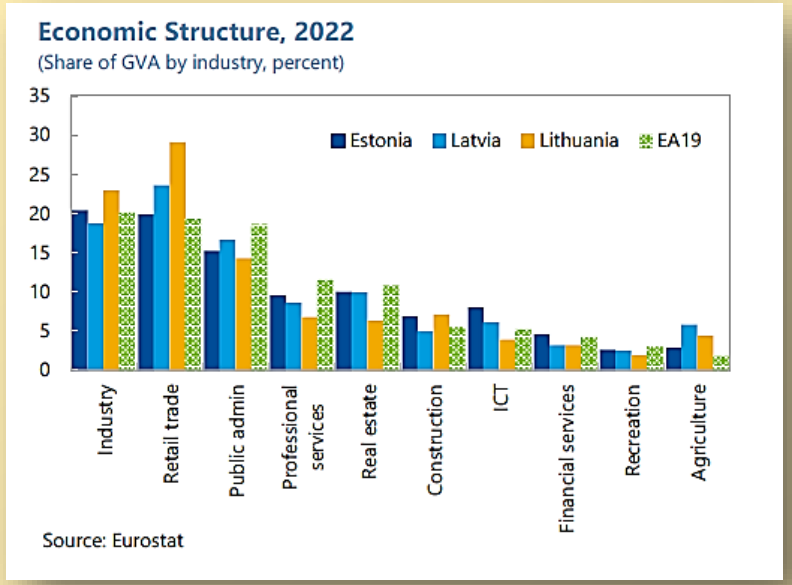
Value Propositions: Theory and Cases.

Our entrepreneurs aspiration: to sell sustainable printers in the most digitalized country of Europe.

If the entrepreneurs´ squad wish to sell sustainable printers, Estonia is the first place to go.

The shift to ICT in Estonia doesn´t represent the core of its economic structure. Estonia still relies in Industry, Retail trade, real estate, profesional services and the government. Given its size, depopulation tendencies, and inherent historical weaknesses, Estonia needs to recalibrate its educational milestones and focus on an integral balanced economic structure.

- The International Monetary Fund has recommended Estonia the following (July 2023): As Estonia exits a phase of rapid catch-up after the Pandemic and the aftermath shock of Ukraine-Russia war, targeted structural reforms can support competitiveness and enhance productivity. These include:
- Improving the quality of labor by addressing shortages of skilled workers;
- Increasing R&D spending to support a shift towards higher value-added products and services;
- Sustaining investment and growth of the capital stock, for example re-calibrating from current spending to productivity-enhancing capital spending, to ensure continued convergence.



Too much of a digital is already affecting the quality of its citizens at the K-12 levels. It is a risk to shuffle in too much digitization at the K-12 levels. Particularly if the solid future workforce is betting for innovation. Innovation can´t be "computer programming only", kids and teens need a solid balanced formation first.

Source References: See slides 49-50

Value Propositions: Theory and Cases.

Our entrepreneurs aspiration: to sell sustainable printers in the most digitalized country of Europe.

If the entrepreneurs´ squad wish to sell sustainable printers, Estonia is the first place to go.

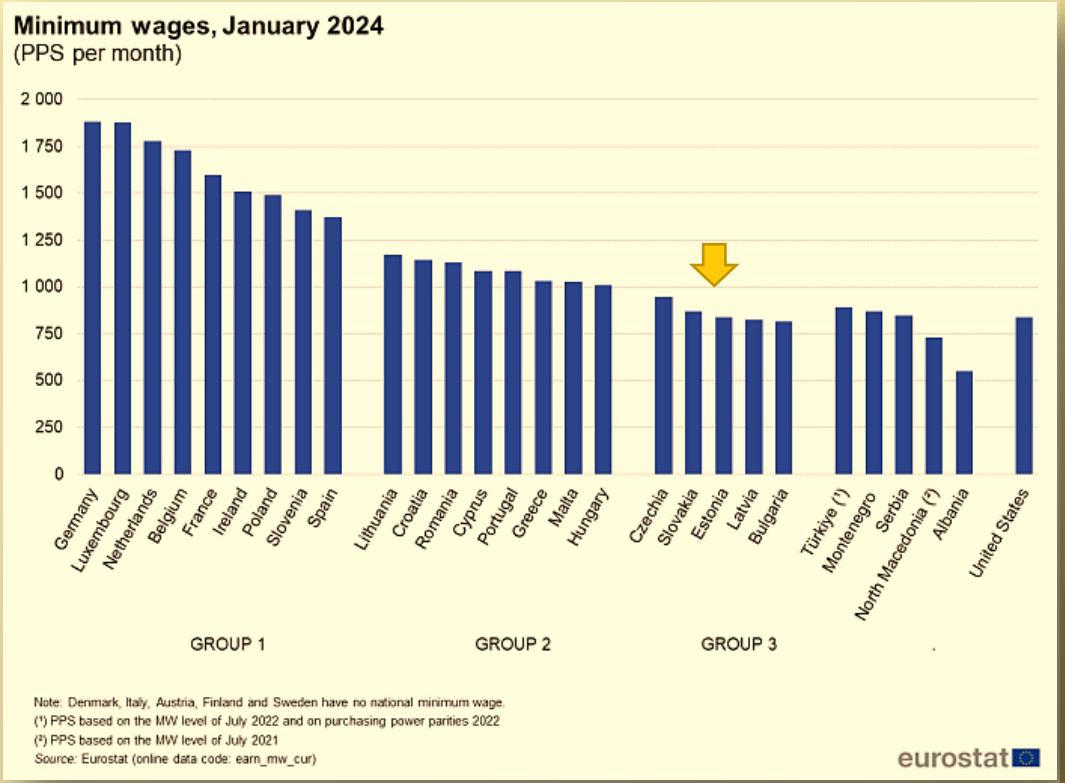
The salaries in Estonia are one of the lowest in every sector.
A junior ICT software developer earns between €2000 to €3000 euros per month, for an average salary of €40,000 euros per year. Professors earn lower and much less than that.

Amazon/Wise salaries

Level	Compensation (annual)				
	US	UK	Estonia	Singapore (SGD)	Hungary (monthly, HUF)
L1 - Junior Engineer	$115-145K	£45-60K	€35-46K	$81-108K	800K-1.1M
L2 - Software Engineer	$145-180K	£60-80K	€46-64K	$108-147K	1.1-1.5M
L3 - Senior Engineer	$170-260K	£80-115K	€64-88K	$147-204K	1.5-2.2M
L4 - Staff Engineer	$240-300K	£110-150K	€88-105K	$204-276K	2.1-2.5M
L5 - Principal Engineer	$300-400K	£140-180K	€98-120K	$258-330K	2.3-2.9M

pragmaticengineer.com

Estonia is leaving money on the table: When it comes to salaries, the ICT employees are earning 3 times less than the USA.



The minimum wage in Estonia is around 800 euros per month according to Eurostat (January 2024).

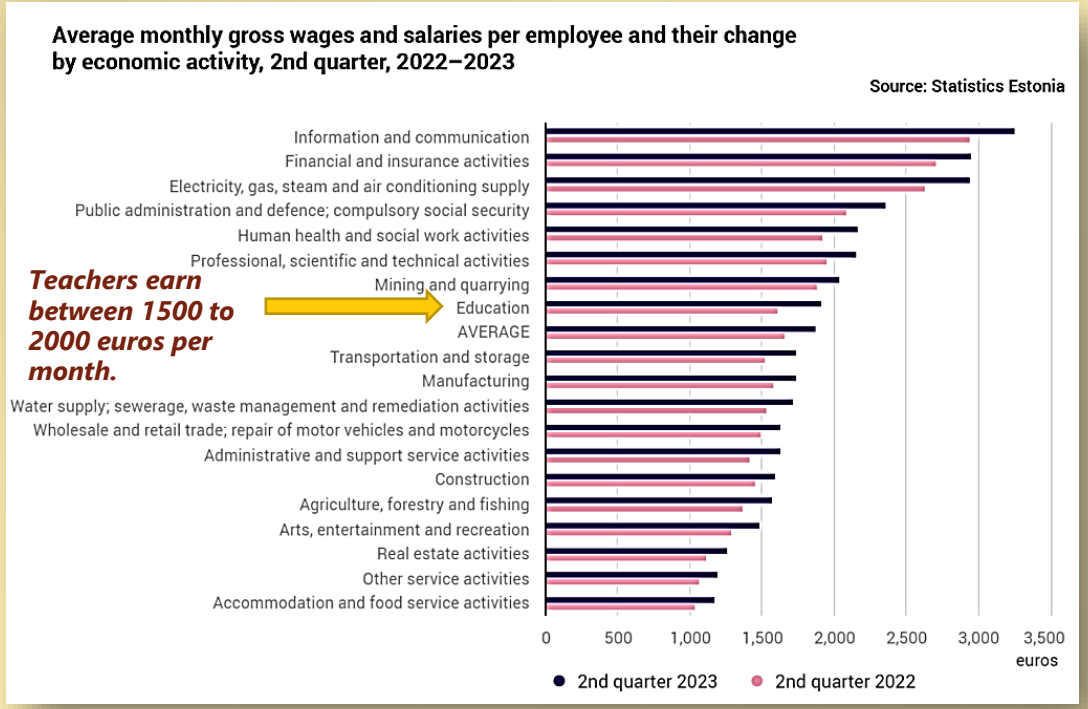
Source References: See slides 49-50

Value Propositions: Theory and Cases.

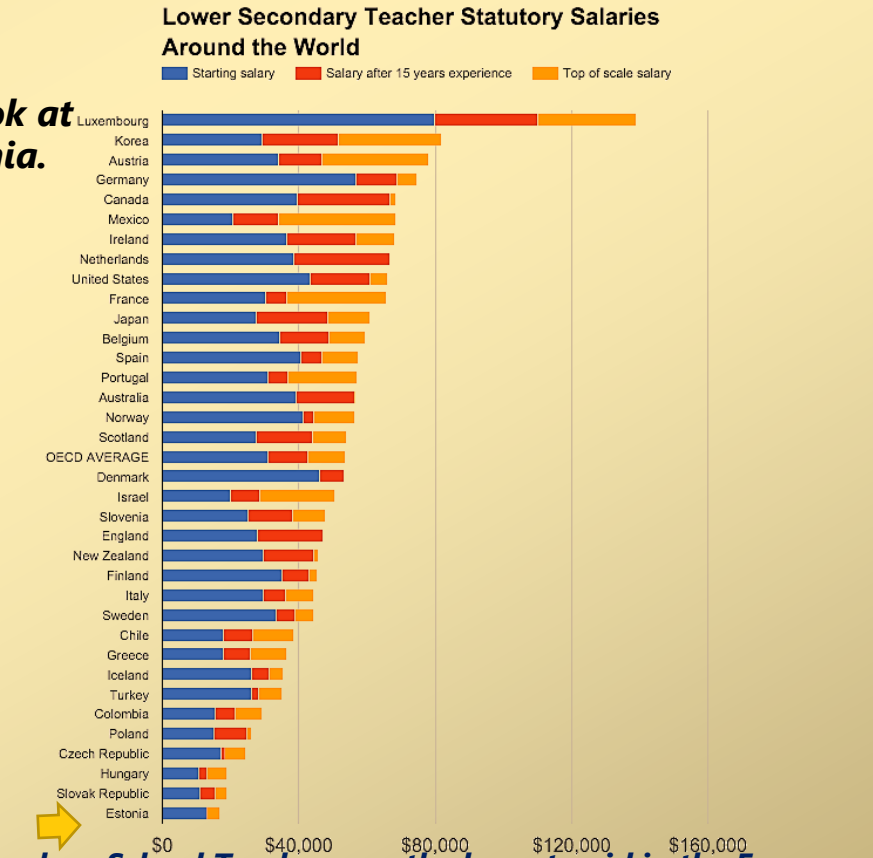
Our entrepreneurs aspiration: to sell sustainable printers in the most digitalized country of Europe.

If the entrepreneurs´ squad wish to sell sustainable printers, Estonia is the first place to go.

The salaries in Estonia are one of the lowest in every sector. Let´s look at the conditions of living of our customer profile: the teachers of Estonia.



Teachers earn between 1500 to 2000 euros per month.



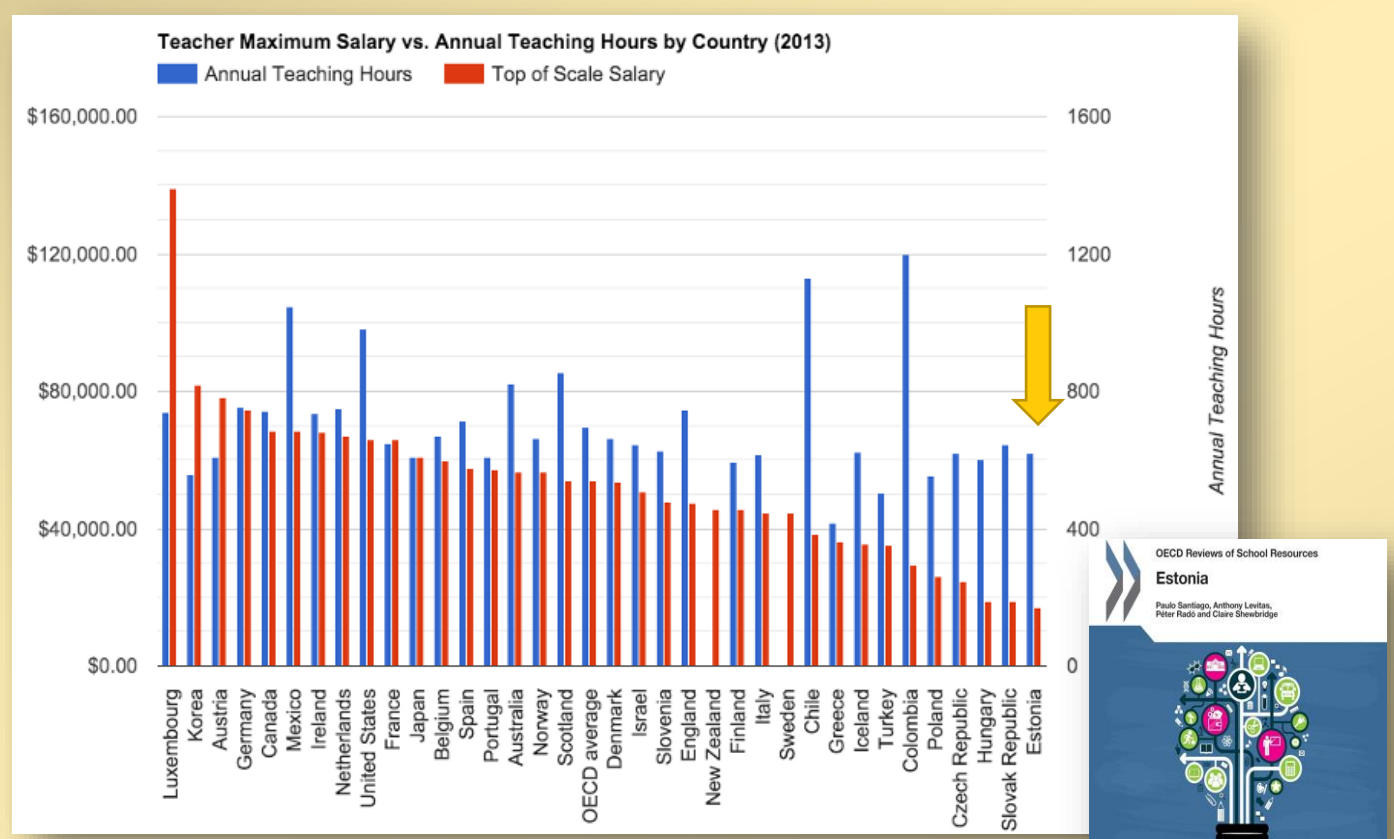
Secondary School Teachers are the lowest paid in the European Union. They earn on average between 1500 to 2000 euros per month.

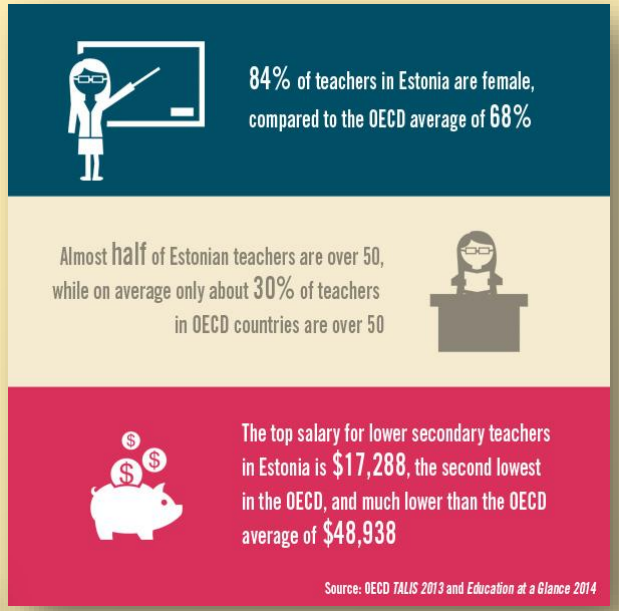
Source References: See slides 49-50

Value Propositions: Theory and Cases.

Our entrepreneurs aspiration: to sell sustainable printers to Estonia

Who would be the focus of attention for the entrepreneurs? What type of teachers are we researching?





If you wish to learn more about our Teachers from Estonia visit the following link https://www.oecd-ilibrary.org/sites/9789264251731-9-en/index.html?itemId=/content/component/9789264251731-9-en

Source References: See slides 49-50

Value Propositions: Theory and Cases.

Our entrepreneurs aspiration: to sell sustainable printers in the most digitalized country of Europe.

If the entrepreneurs´ squad wish to sell sustainable printers, Estonia is the first place to go.

What is the product that our entrepreneurs wish to sell?
A new sustainable printer that works with a sustainable ink that erases with time after 30 days. The paper can be reused up to 50 times.

The entrepreneurs ask themselves?

1. ***What printer to sell? – Value Map***
2. ***To whom? – Customer Profile***
3. ***Can I craft a perfect fit between my product and the customer?***

Our example is inspired by:
The self-erasing printing ink innovation of Carl Yee. Carl Yee ink was awarded U.S. patent number 8,328,317 Self-erasing printing system, and its development was supported by the U.S. National Science Foundation SBIR grant number 1519546.
https://contest.techbriefs.com/2017/entries/sustainable-technologies/8189

For the purposes of this example, our entrepreneurs have an unalike natural formula to what Carl Yee printer ink developed, and they have patented it, and have made strategic alliances for usage altogether with the main 4 Ink tank printer systems companies in the market (Canon, Epson, HP, Brother). The ink formula can be used in pens or markers too.

IMPORTANT NOTICE: This ink is merely an example used by Eleonora Escalante Strategy to illustrate how to build a CVP for Estonia. I found Mr. Yee invention randomly on the Internet. We are not being paid by Mr. Yee, and we have not any commercial interest in his endeavors. If you wish to learn more about Mr. Yee invention, please contact him at https://blueplanetink.com/

Source References: See slides 49-50

Value Propositions: Theory and Cases.

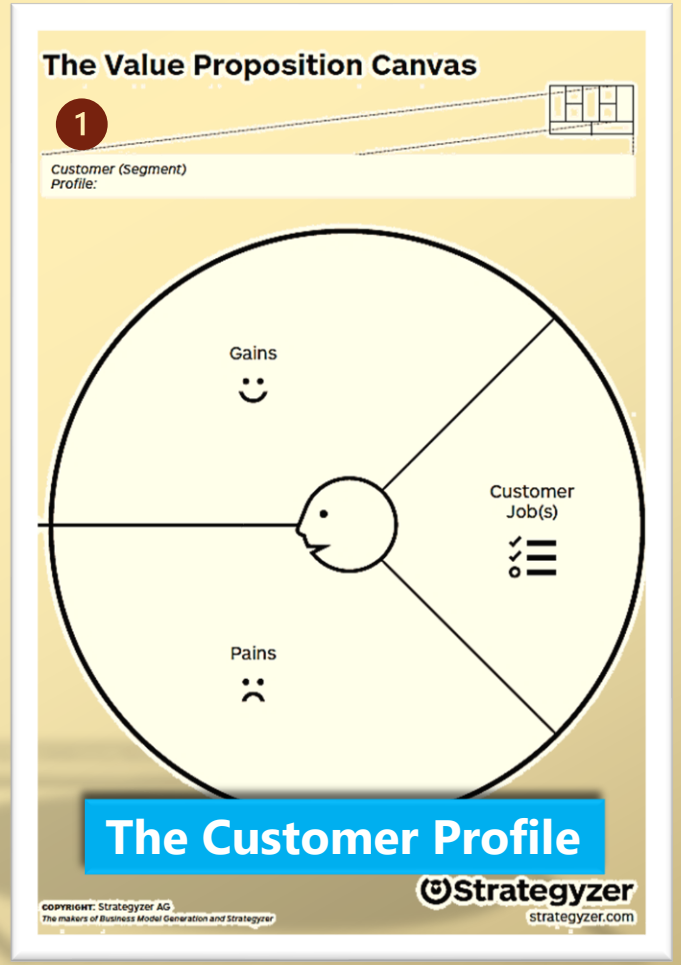
Our entrepreneurs aspiration is to sell sustainable printers to the Estonian educational market.

- Your homework for today is to try to build the CVP for this example.
- We encourage you to do it over the weekend. Do not be scared for making mistakes. No one becomes a master without messing it with tons of errors.
- I will come back on Monday to upload our solution.

Source References: See slides 49-50

Value Propositions: Theory and Cases.

Let´s build the Customer Profile



Source References: See slides 49-50

Value Propositions: Theory and Cases.

Let´s remember: Osterwalder-Pigneur have instructed us to follow a 5-step process when building the Customer Profile.

Visualize the process.

Select customer segment

Select a Customer Segment that you want to profile

Identify Customer Jobs

Ask what tasks your customers are trying to complete. Map out all their jobs by writing each one on an individual sticky note or Post-it.
Use the criteria explained to classify them

Identify Customer Pains

What pains do your customers have?
Write down as many as you can come up with, including problems, unresolved requests, lack offs, obstacles and risks
Use sticky notes.

Identify Customer Gains

What improvements or value-added features and benefits do your client want to achieve?
Write down as many gains as you can find.
Use sticky notes

Prioritize jobs, pains and gains

Categorize jobs, pains and gains in a prioritization column.

Source References: See slides 49-50

Value Propositions: Theory and Cases.

Our entrepreneurs are interested to sell a sustainable printing solution to the Estonian teachers.

Let´s see how can we help these entrepreneurs to build up the customer jobs

Customer Jobs

Functional

- Planning individually schedule for lessons
- Preparing lectures and material, uploading it or sending it in platforms
- Downloading books and e-academic papers, printing, reading
- Searching and organizing pedagogical activities in the classroom
- Meeting with other professors, teamwork and dialoguing with colleagues
- Marking student homework, assignments, controls, exams
- Supervising students during breaks
- Providing counselling and guidance to students
- Participating in school management activities
- Filling administrative paperwork, uploading it digitally

Social

- Providing feedback, communicating and meeting with parents or guardians
- Engaging in extracurricular activities after school
- Meeting with mothers who are actively participating at school
- Relaxing once a week to chit-chat with colleagues to share pastries and coffee
- Going one or two times a week to sport sessions or well-ness recreation organized by the school
- Affiliating to their own group of reference: The Estonian Association of Teachers.
- Assisting students to gain self-confidence for tests, PISA scores and others.

Personal/Emotional

- Developing activities that may reduce anxiety for themselves and students
- Designing multiple type of pedagogical happenings to procure outstanding assimilation of the material by students: the goal is to be better than Google at the class
- Create an environment of exploring to discover the right problem solving at the class in such a joyous and entertained manner.
- Igniting reassurance and confidence into the students through unique learning experiences
- Balancing the digital with the traditional methods of teaching for the well-being of students
- Implementing methods to increase comfort to students

Life-Changing

- Inspiring students for self-transcendence
- Providing hope by creating the best possible environment for learning
- Defending the good old traditional methodologies for learning despite the e-tools used in class
- Preparing pupils for competitions
- Self-actualization: Raising their qualifications free-of-charge
- Reading new books about pedagogical discoveries, subject actualization, etc.
- Guarding the students brains from digital damage
-

Actions

Source References: See slides 49-50

Value Propositions: Theory and Cases.

Our entrepreneurs are interested to sell a sustainable printing solution to the Estonian teachers.

Let´s help the Entrepreneurs to find the difficulties or pains of the Estonian Teachers

Customer Pains

Functional Concerns

- Watching how excessive digital addiction to students is affecting their attention and performance in class
- Being unable to print material for the class because of prohibitive measures to go digital
- Worrying about examination dishonesty cheating
- Losing time by trying to discern when the pupils are cheating in their digital assignments
- Being annoyed by the lack of funds for print-outs for the class
- Being anxious by the duty usage of e-educational platforms
- Overlooking the significance of printing in the learning process
- If you buy cheaply, you pay dearly: cheap printing resources are a waste of money.

Obstacles

- Digital education has proven to be utilized for online learning fraud and hackers
- Low salaries keep teachers demotivated particularly the youngest generation of teachers are moving to the ICT sector
- High-quality well-trained Estonian teachers are leaving the classrooms
- Going green has been perverted to extreme, sometimes incorrectly by not using paper at school
- Unaffordability of top international courses for teachers
- Conflicting work schedules
- Lack of relevance in the local Estonian development courses with no accreditation.

Unwanted Problems

- Being penalized to use paper and ink because digital is the “only allowed” way to go
- .Paying from their own money for offering print-outs for class training in the classroom
- Not being able to fulfill the ESF-Estonian qualifications Authority Standards
- Living in stress for not accomplishing PISA scores to the rise since 2012.
- By going digital, teachers are losing their autonomy
- Managing stress to shift from the old attestation system to the new competency-based career structure is heaviest to handle.

Potential Risks

- The status of teaching profession is one of the lowest: many youngest teachers don´t want to teach anymore.
- Feeling undervalued represents a risk: the teaching profession is not competitive in the labor market
- Lacking quality instruction undermines quality of students: shortage of instructional materials
- Most of professional development goes to computer software or IT instruction, leaving other important aspects of professional development out
- Not knowing where are they going with the digital education

Source References: See slides 49-50

Value Propositions: Theory and Cases.

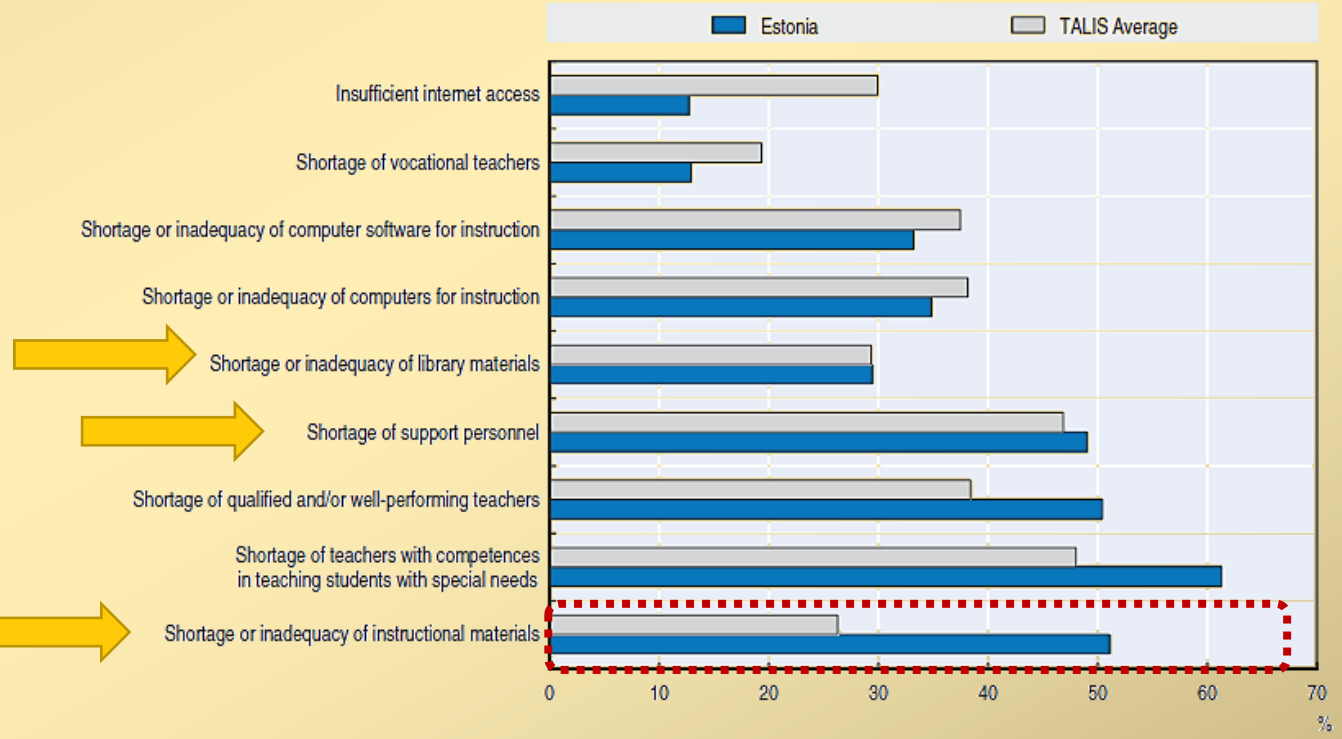
Our entrepreneurs are interested to sell a sustainable printing solution to the Estonian teachers.

Let´s help the Entrepreneurs to find the difficulties or pains of the Estonian Teachers

Customer Pains

Functional Needs in Education in Estonia (K-12)

Figure 5.8. **Percentage of teachers whose school principal reports that the following resource issues hinder the school's capacity to provide quality instruction, lower secondary education, 2013**



Notes: Includes principals reporting that the resources issues hindered quality instruction "a lot" or "to some extent".
Source: OECD (2014b), TALIS 2013 Results: An International Perspective on Teaching and Learning, http://dx.doi.org/10.1787/9789264196261-en.

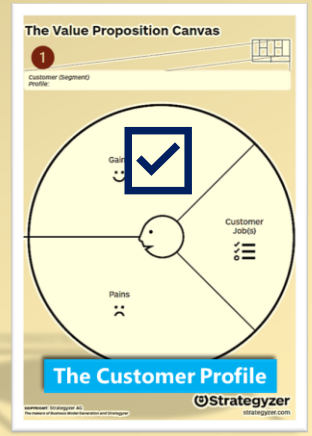
Source References: See slides 49-50

Value Propositions: Theory and Cases.

Our entrepreneurs are interested to sell a sustainable printing solution to the Estonian teachers.

Let´s help the entrepreneurs to find the wished or wanted customer gains

Customer Gains



Required Gains

- The role of printing is crucial for the pedagogical support of student needs since pre-school to all K-12
- Printing is vital for the classroom and homework
- Printed materials are mandatory for ensuring no cheating in exams, quizzes and reports
- Between 65% to 90% of print jobs are dedicated to teaching and educational support for students. These resources are required for teachers in their quest to diminish the digital damage from Smartphones
- Reading requires printing or buying books. Students do not keep information in their brains from Kindles or tablets.

Desired Gains

- Wishing re-usable paper after printing, to use it as many times as possible
- Teachers´ wishing for paper based educational materials in comparison to the digital.
- Balancing digital and print pedagogy effectively
- Ecological printing is repeatedly craved by professors

Expected Gains

- Raising the importance of printing with the responsibility of reusing ink and paper
- Printing supplies in a country with more than 95% of public education can be negotiated by the Estonian Government with success
- Printing resources of excellent quality: inks, paper, equipment, copies for pupils, etc. The printing can be organized per volume of printing, types of printing and grades
- Reusable paper would be a benefit for faculty, parents and students

Unexpected Gains

- Printing is crucial for reading. Bookworm competition between schools maybe based on the volume of paper that is reused.
- The schools that show the most consumption of re-used reading paper may be recipients of scholarships coming from European Commission funds.
- Linking printing with reading science, studying math and proficient reading may help to attract new updated books for school libraries.
- Hand cursive writing linked to paper utilization.

Source References. See slides 49-50

Value Propositions: Theory and Cases.

Let´s proceed to rank the different attributes that we have defined previously

The prioritization of the features of jobs, gains and pains can only occur if we describe them as concrete as possible under specific contexts and customer segment.

Customer Jobs

Level of Job Importance

+Important

- Reading for class preparation
- Preparing lectures and material for class
- Downloading and printing
- Organizing different pedagogical activities

- Marking student homework, controls, exams
- Balancing digital vs physical successfully.
- Filling administrative paperwork

- Insignificant

Customer Gains

Grade Gain Relevance

+ Essential

- Printing is vital for explaining in class
- Ensuring no cheating in exams, quizzes, homework, reports
- Instilling reading with reflection is crucial. At the end of high school 50% of students should be at least Literacy 5.
- Printing for reading helps to elevate PISA scores again.
- Help students to recover handwriting again

- Nice to Have

Customer Pains

Degree Pain severity

+ Extremely high

- Watching how the excessive use of digital has affected pupils performance
- Overlooking the significance of printing
- Paying for printing from their own pockets
- Mandatory digital hurts everyone
- Shortage of printed instructional material
- Living in stress for not reaching objectives
- Printing is forbidden by school authorities

-Moderate or low

Source References: See slides 49-50

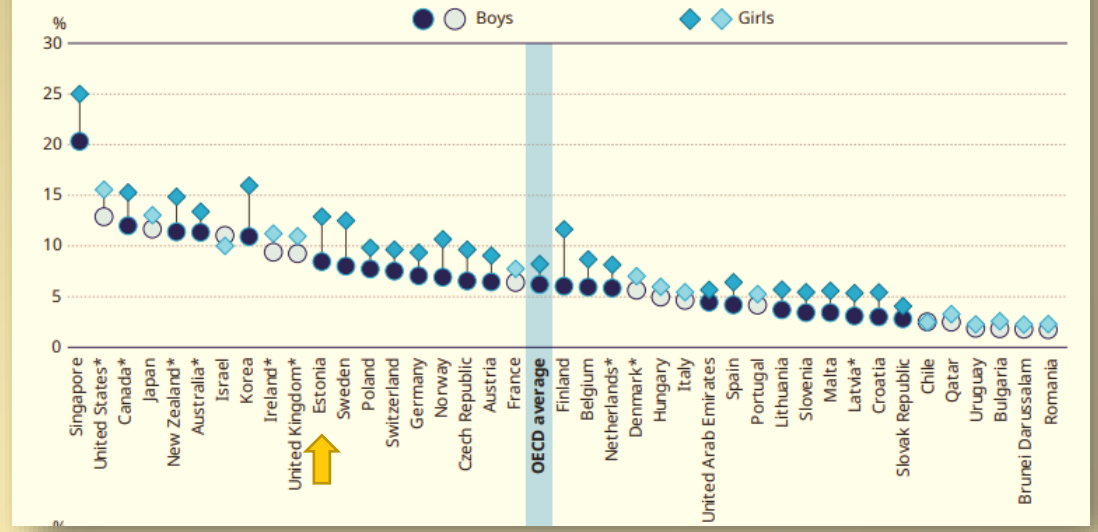
Value Propositions: Theory and Cases.

Let´s proceed to see two graphs from OECD PISA scores 2022. Look at Estonia please.

PISA 2022: Insights and Interpretations

Top performers in reading, by gender

Percentage of students who scored at proficiency Level 5 or above in reading, by gender

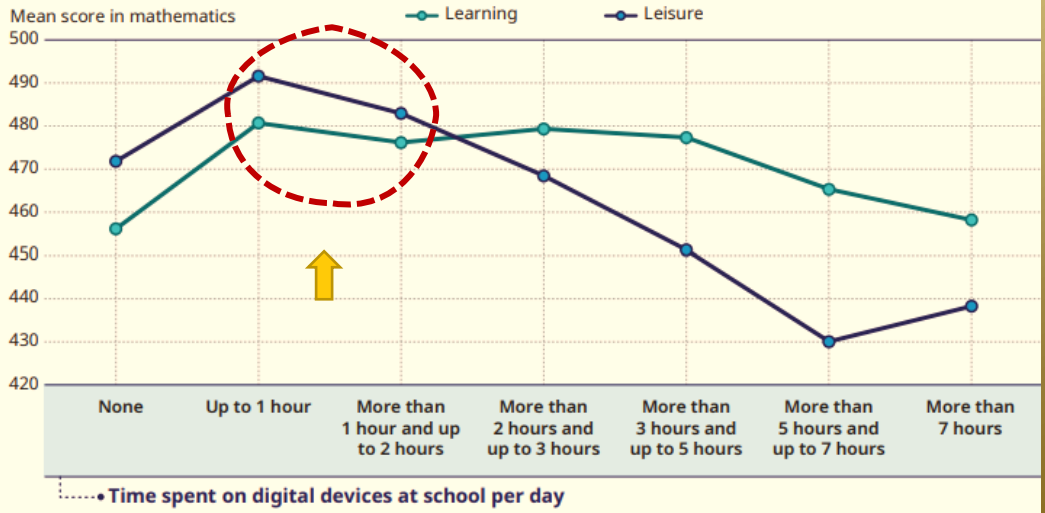


Only 22.5% of Singapore kids reach Level 5 of Reading proficiency. Estonia shows around 10% of students at that level of OECD PISA standards.

Students with best scores in Math are the ones that spend between 1 hour to 2 hours per day with digital devices at school/leisure (OECD PISA 2022 data)

Time spent on digital devices at school and mathematics performance

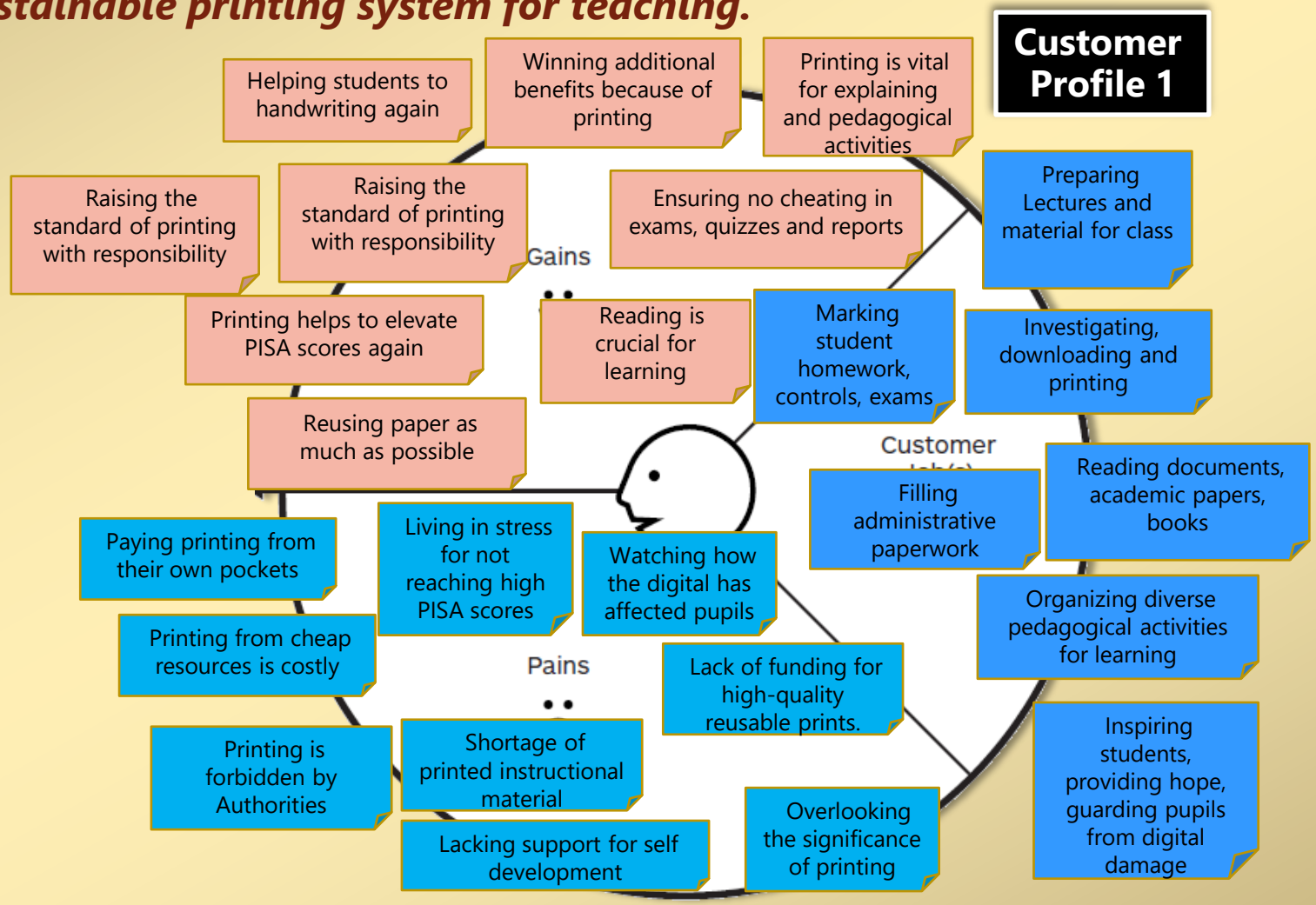
Based on students' reports; OECD average



Source References: See slides 49-50

Value Propositions: Theory and Cases.

A Customer profile (Version 1.0) for the Teachers of Estonia that might be interested to use a sustainable printing system for teaching.



Proceed to write each of your ideas in this template.
Please download and print the template from https://www.strategyzer.com/library/the-customer-profile
Please use sticky notes and glue each of them over the printed template with your own written ideas

Source References: See slides 49-50

Value Propositions: Theory and Cases.

Our entrepreneurs are interested to sell a sustainable printing solution to the Estonian teachers.

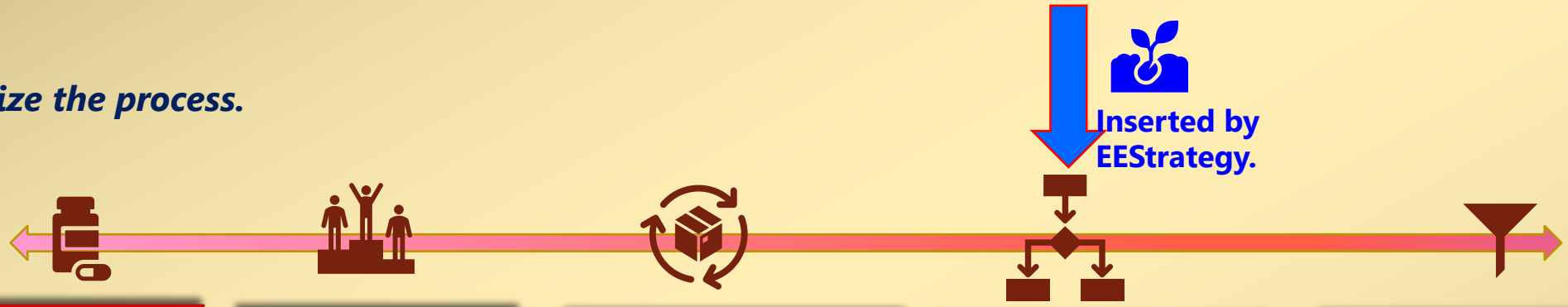
Let´s build the Value Map

Source References: See slides 49-50

Value Propositions: Theory and Cases.

Let´s remember what are the steps for the Value Map

Visualize the process.



Outline Pain Relievers

Stick each post-it or sticky note that you have written as removal of the pain (partial or total) or as a palliative remedy (mild, moderate or acute cure).
Use only one sticky note per one pain reliever

Outline Gain Creators

Write in each sticky note how your products and services will create expected or desired outcomes and benefits for the clients.
Use only one sticky note per one gain creator.

Identify a list of products and services

List the main product and/or service you had in mind before doing the CVP. Add new products that may have appeared during the process.

Identify potential negative consequences of each product/service

If you consider the feature: Love for your customers, that will immediately help you to filter the opioids type of pain relievers and the opportunistic gain creators. List the wrong consequences for each and remove that product/service from your list.

Prioritize jobs, pains and gains

Once you remove the product/service that is the worst-nasty in terms of consequences; then rank them according to how essential or "nice-to-have" for your customer segment.
Don´t forget to prioritize your gain creators and pain relievers too.

Source References: See slides 49-50

Value Propositions: Theory and Cases.

Our entrepreneurs are interested to sell a sustainable printing solution to the teachers of Estonia

Let´s see how can we help them to define the pain relievers

Pain relievers

A pain can be eradicated (removal) or reduced (palliative). A pain reliever category is designed according to the degree of solution to the problem

Reducing or Removing undesired functional concerns

- Reusing printing paper in class would be amazing for reducing costs. Reducing costs is attainable: reusable paper up to 50 times
- Reducing anxiety for printing too much
- Removing the guiltiness for printing
- Diminishing the fear of damaging the forests
- Fading away the remorse of using print-outs when it is mandatory to go digital
- Self-erasing inks makes every page re-usable
- Lessening hassles of not giving a good class

Diminishing or Eliminating Obstacles

- Eliminating the sense of "I am doing something bad by printing resources for class"
- Destroying the need for utilizing the smartphone in class
- Eliminating cheating, copy and identity fraud in digital examinations
- Reducing the pain of passing the baton to the next cohort of educators who have been imprisoned as digital addicts.
- Weakening the value proposition of "only digital"
- Withdrawing from the pact of going digital for the sake of ICT improvement.

Solving unwanted problems

- Remedying the penalty of using paper and inks
- Moderating the good old traditional with the correct limited use of digital tools
- Not paying from own money the print-outs for class
- Reducing insecurity of not fulfilling the goals of the Estonian Qualifications Authority Standards
- Diminishing stress for not elevating educational standards (PISA scores)

Weakening or Wiping Risks out

- By elevating students results, the profession of teaching as a low-status may be weakened
- Removing the feeling of undervalued role
- Wiping the risk of moving in the wrong direction with the next generations

Source References: See slides 49-50

Value Propositions: Theory and Cases.

Our entrepreneurs are interested to sell a sustainable printing solution to the teachers of Estonia

Let´s see how to proceed to define the gain creators of our solution

Gain Creators

Functional-Utility Advantages

- Printing with a sustainable product helps to reduce anxiety of using paper
- Improves the quality of education
- Reignites the habit of reading books and other materials on paper
- Integrates the objectives of the professor with the brain development of pupils
- Amends the damage of too much digital at home
- Rekindles the joy of learning well.
- Recovers the sensory appeal connected to paper for learning.
- Gains resources that were prohibited once choosing digital

Social Benefits

- Augments the sense of belonging to a top class of educators who harvest learners that can read and write well
- Increases the reputation of Estonia´s teaching and professors' quality
- Raises the preparation of students who are successful in their tests to join prestigious universities by merit
- Provides hope for requesting salary increase and/or benefits.
- Anticipates the balance between digital-traditional school that can be replicated in the world.

Emotional Upgrading

- Rewards teachers contentment for pupils' triumph over ignorance
- Mixes the fun/entertainment of using a variety of pedagogical tools beyond digital
- Procures a sense of satisfaction for the correct education of students
- Provides access to potential scholarships in foreign countries
- Keeps the traditional cultural aspects of Estonia

Other Gain Qualities

- Provides hope for the value of ecological printing
- Keeps the motivation to give a “good class” beyond digital
- Additional benefits: the volume of reusable prints and books can help to gain scholarships, exchange programs with Erasmus, European Union funds for Estonia Education, etc.
- Improve the library of schools with permanent ink books.
- Returning to hand-cursive writing is crucial for the brain

Source References: See slides 49-50

Value Propositions: Theory and Cases.

Our entrepreneurs are interested to sell a sustainable printing solution to the teachers of Estonia

Let´s see how can we help them to define the final product and additional ones

Products/Services

Functional Tangible • The sustainable printer is a design that allows self-erasing ink in strategic alliances with Canon, Epson, HP and Brother. Its main attribute is to satisfy the needs and wants of the professors of Estonia in terms of cost-efficiency, copying and offering multiple formats of printing. Paper can be reused after 30 days (the self-erasing ink disappears after a month). • It is a low cost-energy efficient printer.	**Emotional Intangible** • Increasing salaries of Estonia professors: If 50% of students are ready to read at literacy 5; a new salary system for professors should be risen.	**Environment** • Self-erasing ink with reusable paper promises to keep effective brainiac development alive.
Life Changing • Printing for an excellent mix of digital-traditional education is linked to success of educators. • Hand-cursive writing	**Social Impact** • OECD PISA Scores improved over time to reach the level of the top Singapore in 5 to 7 years • Reading on paper at literacy 5 implies a change of attitude and habits for the whole country: parents, students, professors and professionals	**Love** • Love for the nature, love for our brain development and caring for Estonian society thoughtful and reflective spirit. • Self-love: Helping Estonians to live happy by the books, and not pursuing what makes them unhappy.

Source References: See slides 49-50

Value Propositions: Theory and Cases.

Let´s proceed with the ranking (prioritization) of the value map elements.

The prioritization of the features of these three components can only occur if we describe them as concrete as possible under specific contexts and answering the needs/wants/problems of the customer segment.

Products/Services

Relevance Scale

+Essential

- Sustainable printers with self-erasing inks for reusable paper up to 50 times. The ink disappears after 30 days of the print.
- New Policies for the Increase of the Estonian professors' salaries linked to the good and balanced utilization of prints for excellent pedagogical training at school
- Access to printed materials and books at libraries: for a culture of reading at literacy 5 for 89% of high-school students in 10 years from now

-Nice to Have

Gain Creators

Relevance scale

+ Essential

- Improves the quality of education
- Keeps the balance between digital-traditional
- Recovering the ample sensory appeal that is linked to paper for learning
- Ecological printing at the top
- Rewards the satisfaction of professors when students do well
- Provides access to potential scholarships
- Improve the library experience
- Augments the joy of not losing what has been good for humanity
- Moderating between digital and traditional.

-Nice to Have

Pain Relievers

Relevance Scale

Removal of the pain

Partial

- Defeats digital addiction Reutilization of paper is cost efficient
- Eliminates anxiety and guiltiness of printing
- Remedying the penalty of using paper and inks
- Destroying the need for utilizing smartphones in class
- Weakens the digital value proposition
- Eliminates cheating in exams, quizzes and homework

Total

Alleviation or Palliative

Mild Relief

- Removes the pain of leaving a next cohort of educators under the status of digital addicts
- Low class status of professors is weakened
- Diminishes the fear of damaging forests
- Reducing insecurities
- Diminishes stress in professors
- Reduces the boring digital experience

Moderate To Acute Relief

Source References: See slides 49-50

Value Propositions: Theory and Cases.

Proceed to write each of your ideas in this template.
Please download and print the template from https://www.strategyzer.com/library/the-value-map
Please use sticky notes and stick each of them over the printed template with your own written ideas

Other products that were born because of this analysis that will require separate CVPs

Regular Products

- Increase of Estonia Professors salaries linked to top performance of students in reading, math and science.
- Happiness for professors and students
- Welcome back to the hand-cursive writing
- Access to good books and quality libraries

Value Map 1

- Bottles of self-erasing ink in liters, 500 ml and 30 ml
- Enterprise Professional Multifunctional sustainable printer, copier and scanner
- Large Format sustainable printers

Standard sustainable printer and copier that functions with self-erasing ink after 30 days; paper can be reused up to 50 times

Gain Creators

- Revamps hand-cursive writing
- Reignites the culture of reading society more and best
- Gains paper resources that have been prohibited at schools
- Improves the quality of education over time
- Opens doors to future scholarships
- Provides hope of raising salaries for teachers
- Increases the joy of teaching as it should be
- Improves library experience
- Recovers sensory appeal linked to paper for learning
- Rewards professors if students do well
- Destroying the need of using smartphone in class
- Removes the guiltiness of printing
- Reduces anxiety of printing too much
- Wipes the fear of moving in the wrong direction
- Eliminates cheating in exams, quizzes and homework
- Defeats digital addiction
- Reusing paper 50 times
- Removing the feeling of teacher undervalued
- Lessens the insatisfaction of not giving a good class
- Fading away the remorse of using print-outs in class
- Removes the pain of passing the baton to digital addict professors

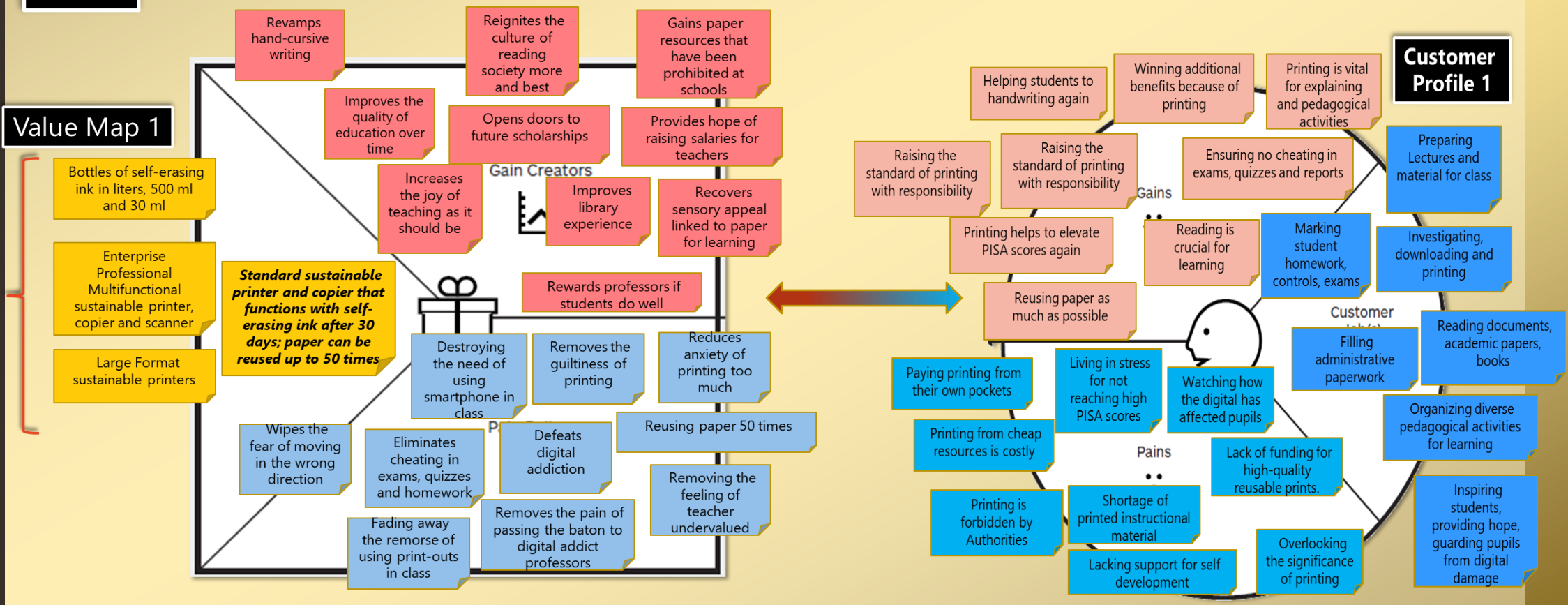
Source References: See slides 49-50

Value Propositions: Theory and Cases.

This is our first Customer Value Proposition 1.0 for the sustainable printing solution for Estonia

Subject to review.

CVP1



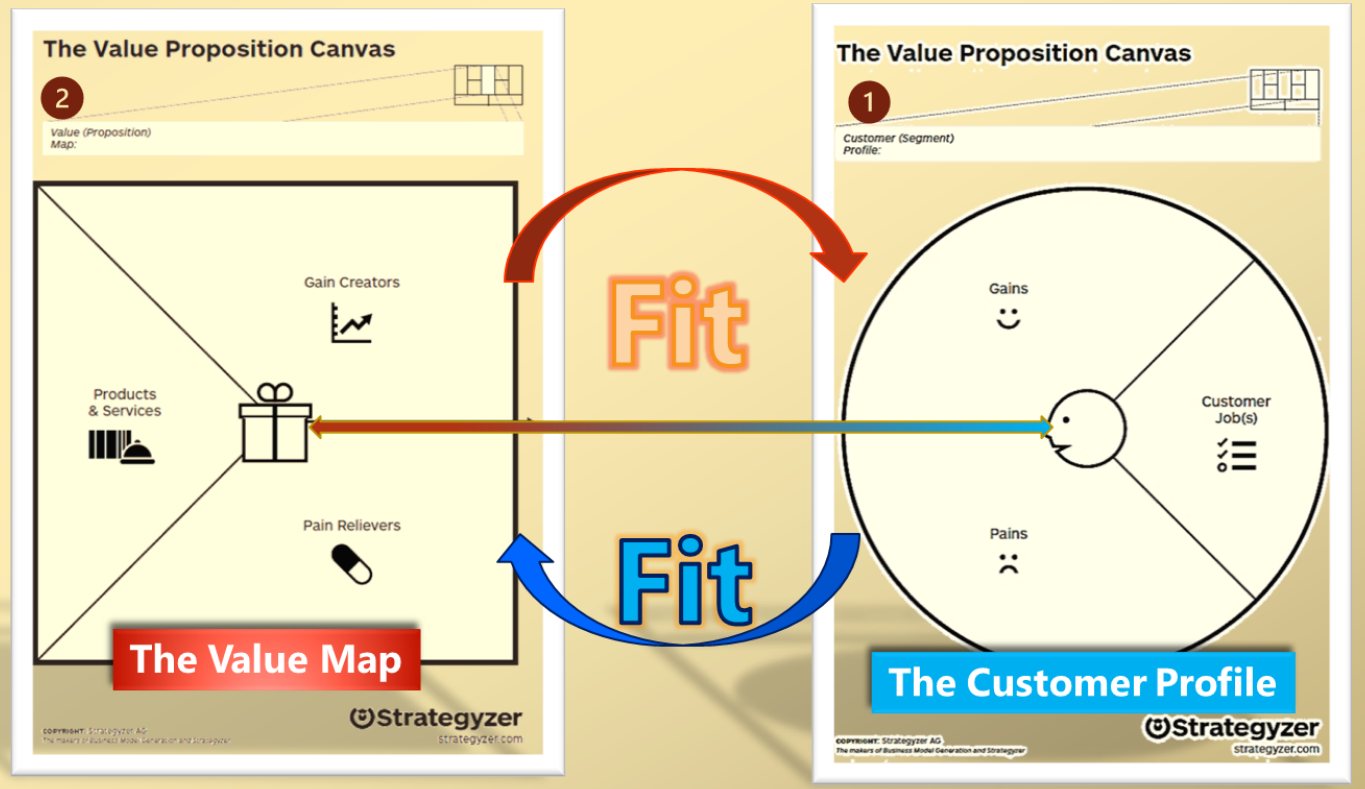
A customer value proposition canvas

Value Propositions: Theory and Cases.

Finally, we should check if there is a fit. You achieve "FIT" when customers not just accept but are motivated to explore the CVP that is embedded in your product/service

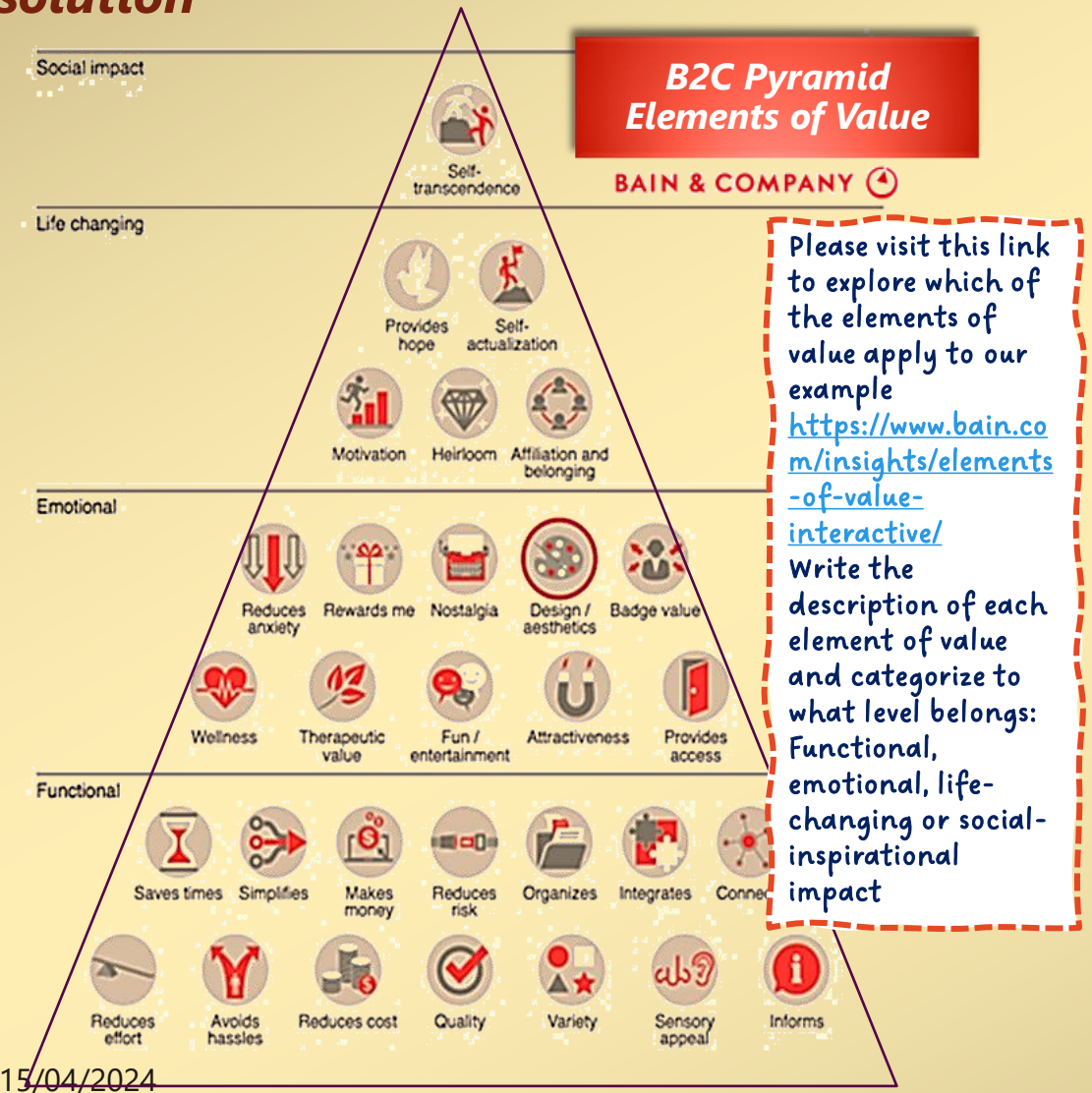
Let´s see how to connect the customer profile with the value map

Let´s check if there is a fit.



Value Propositions: Theory and Cases.

We will discover which elements of value of The Value Pyramid are included in our solution



Please visit this link to explore which of the elements of value apply to our example https://www.bain.com/insights/elements-of-value-interactive/
Write the description of each element of value and categorize to what level belongs: Functional, emotional, life-changing or social-inspirational impact

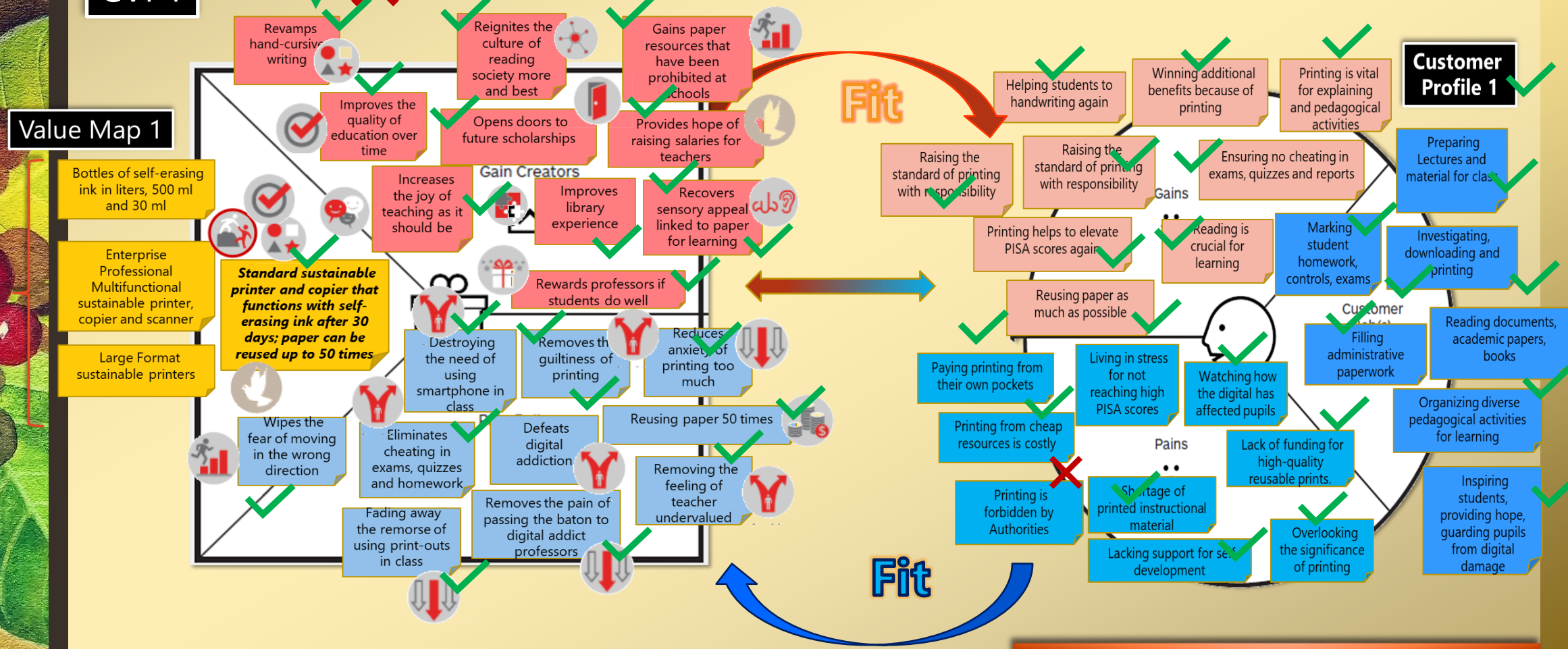
Elements of Value	Each pain reliever or gain creator belongs to a category of Value. Description	Category Level
	Reduces risks	Functional
	Avoid Hassles	Functional
	Reduces Costs	Functional
	Integrates	Functional
	Connects	Functional
	Improves Quality	Functional
	Improves variety	Functional
	Sensory Appeal	Functional
	Rewards me	Emotional
	Provides Access	Emotional
	Provides Hope	Life Changing
	Motivation	Life Changing
	Self-Transcendence	Social impact
	Fun and Entertainment	Emotional

Value Propositions: Theory and Cases.

Let´s check if our sustainable printing solution CVP version 1.0 fits to the Estonian teachers wants and needs.

CVP1

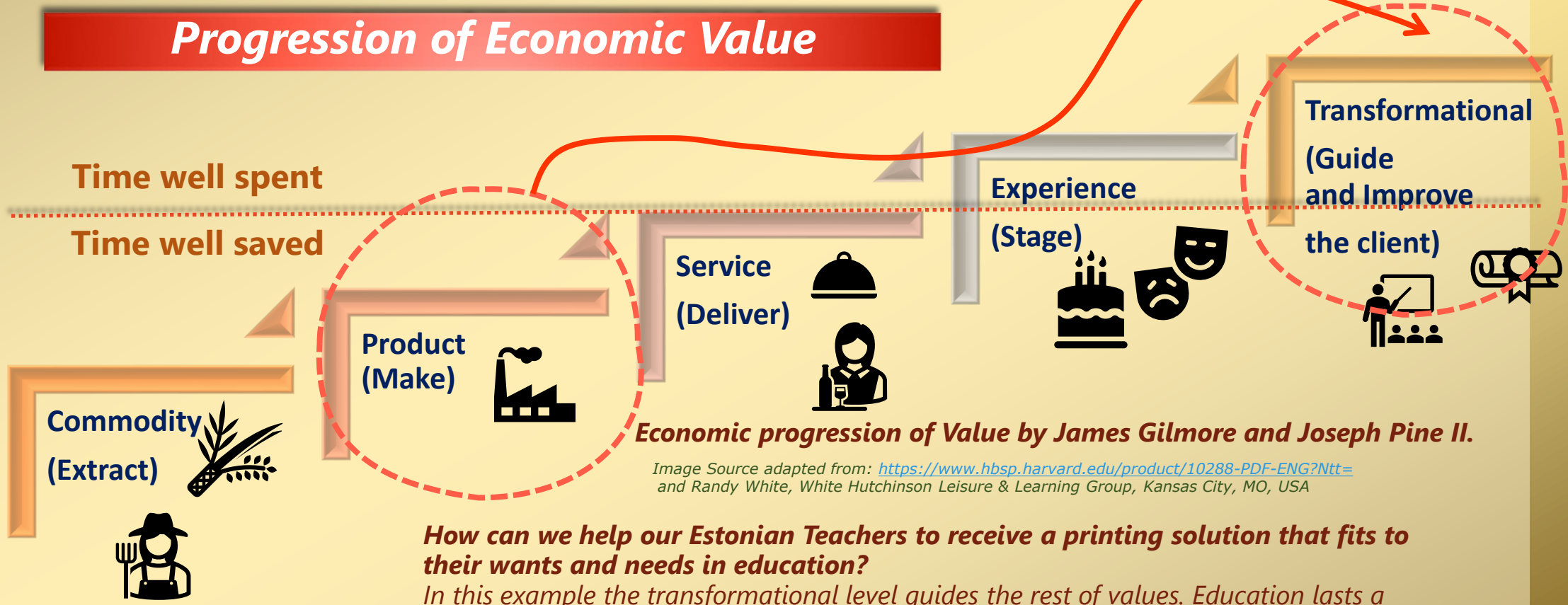
Check ✓ or ✗ if there is a link of each sticky note from the value map with the customer profile sticky posts.



A customer value proposition canvas

Value Propositions: Theory and Cases.

If you observe with detail the elements of value from the Value map, let´s check how can we guide our customer profile segment .



Economic progression of Value by James Gilmore and Joseph Pine II.

Image Source adapted from: https://www.hbsp.harvard.edu/product/10288-PDF-ENG?Ntt=
and Randy White, White Hutchinson Leisure & Learning Group, Kansas City, MO, USA

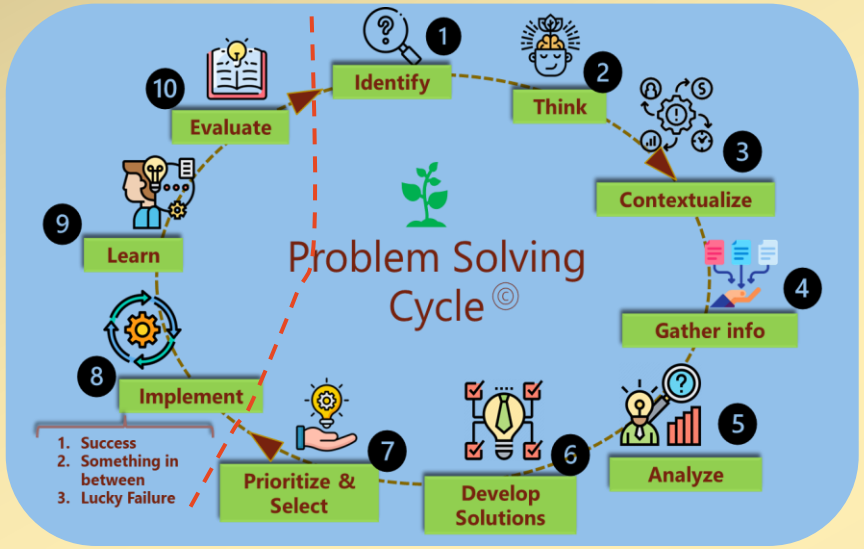
How can we help our Estonian Teachers to receive a printing solution that fits to their wants and needs in education?

In this example the transformational level guides the rest of values. Education lasts a life-time. Good education with print-outs is crucial for brain development and wellness of our capabilities.

Source References: See slides 49-50

Value Propositions: Theory and Cases.

What is the connection between our problem-solving cycle and the fit of the CVP version 1.0?



How to continue refining the CVP for this example:

- ***Try to list elements of value for these three stages please***

- ***Do not forget that the customer value cycle doesn´t begin with the value realization. Our testing analysis must convene to explore elements of value previously***

Value Pursuit

Elements of the Value Pursuit stage:

- When teachers prepare their lectures, the utilization of printing begins
- The benefit of reusable printing has a functional value
- If the utilization of paper begins with professors, the students will follow their example.

Value Expectation

Elements of the Value Expectation stage:

- The sustainable paper promises the reutilization: it is a circular economy model
- The price of the sustainable printer is similar to the current technologies without self-erasing ink. The quality is similar.

Value Realization

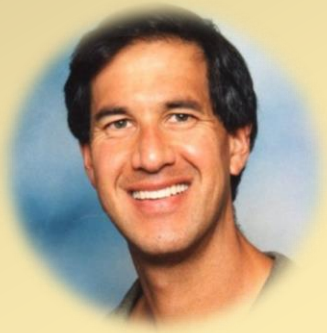
Elements of the Value Realization stage:

- The value at the realization stage provides an element of self-transcendence.
- The students and professors can observe the reutilization naturally and it works wonders in saving costs for schools!

Source References: See slides 49-50

Value Propositions: Theory and Cases.

To prepare today´s example, I was inspired by the invention of Mr. Carl Yee (self erasing printing system), by the teachers of Estonia, and by the marvelous efforts of educators all over the world that already know the excessive and negative effects of extreme digitalization in the education of students. To all of them my admiration and best wishes for success.



Mr. Carl Yee.
Stanford Graduate Mechanical Engineering
Entrepreneur Business Owner of
https://blueplanetink.com/

Value Propositions: Theory and Cases.

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The solution to this exercise will be uploaded on Monday.

Our next publication will be Example 4. A Luxury Precious Stone Mining

Value Propositions: Theory and Cases.
From January 22nd to May 24th, 2024.