

Creating and capturing value from innovative tech

Ph.D. Class ENG-642




Dr. Sharon Tal

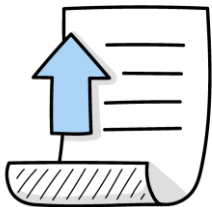
sharon@wheretoplay.co

Session 4

Fall Term 2025

Today's agenda

- Share & learn: 1-2 presentations of Worksheet 2, Q&A  
- How to focus smartly (Worksheet 3 of the Market Opportunity Navigator)
- Mrs. Isabel Casado Harrington - head of Unit, Startup Launchpad: how EPFL supports budding entrepreneurs
- Group work on Worksheet 3 and business presentations 



Deliverables: The filled Worksheet 3, the business presentation

Share & learn

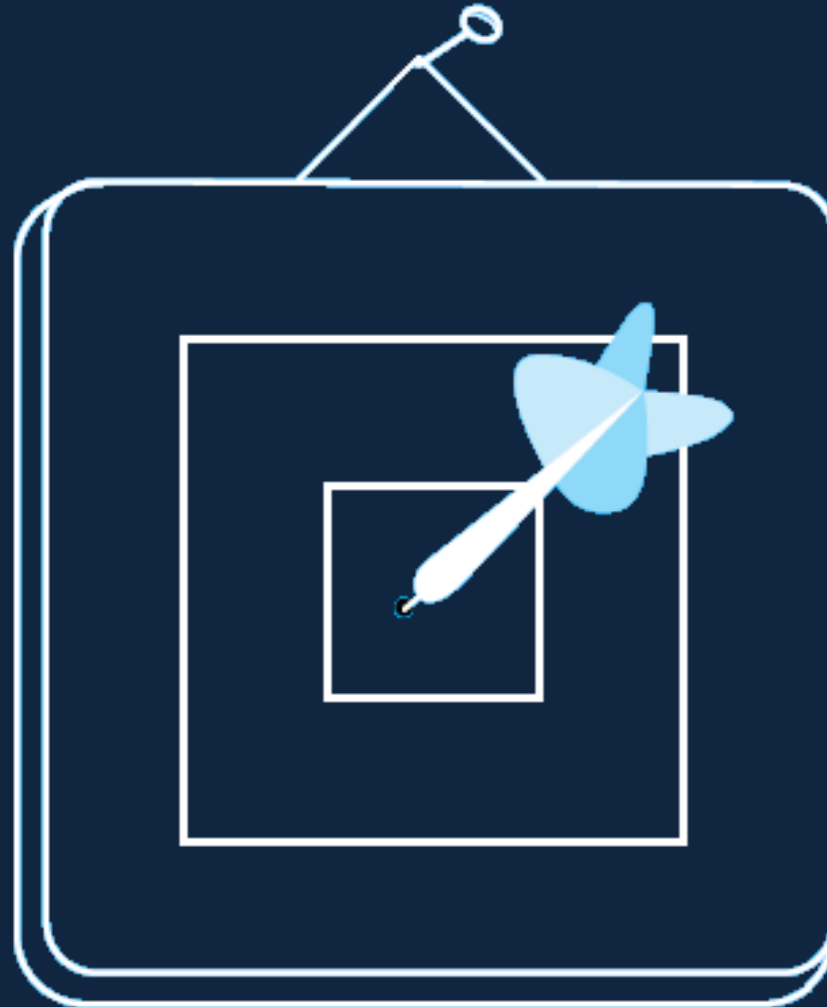
- How did you evaluate the overall potential and challenge of your opportunities?
- Where is it positioned on the Attractiveness Map?
- Did you find the AI prompts valuable?
- Did you assess its social/ environmental impact?
- If you desire to continue this exploration: What should be your next learning goals?
- Any questions/ challenges?



The main takeaways from this exercise

- Its a learning process: ask yourself the most important questions before making a critical decision
- Quick and dirty evaluation can help you figure out the main assumptions that still need to be validated
- A 'perfect' opportunity hardly exists
- The systematic approach is extremely valuable when you need to compare and prioritize different opportunities

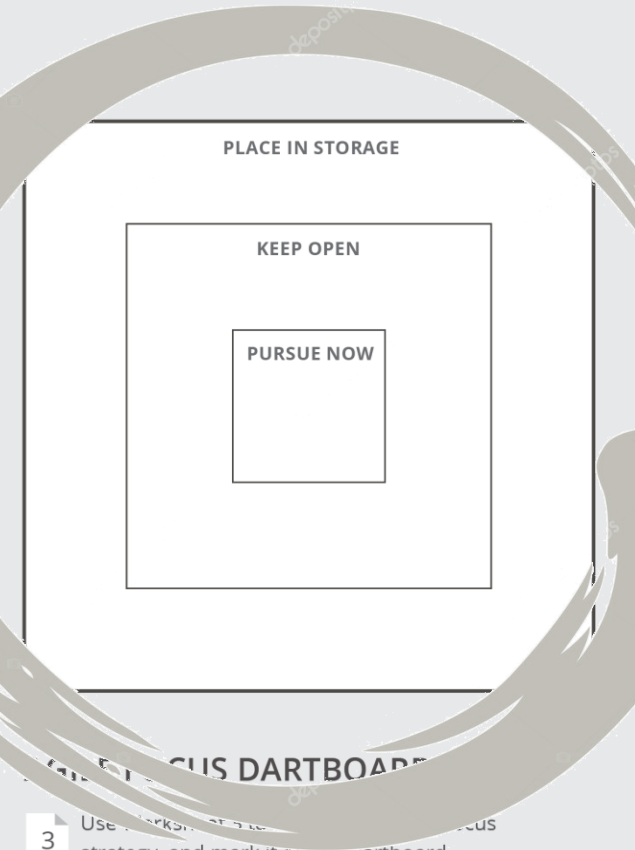
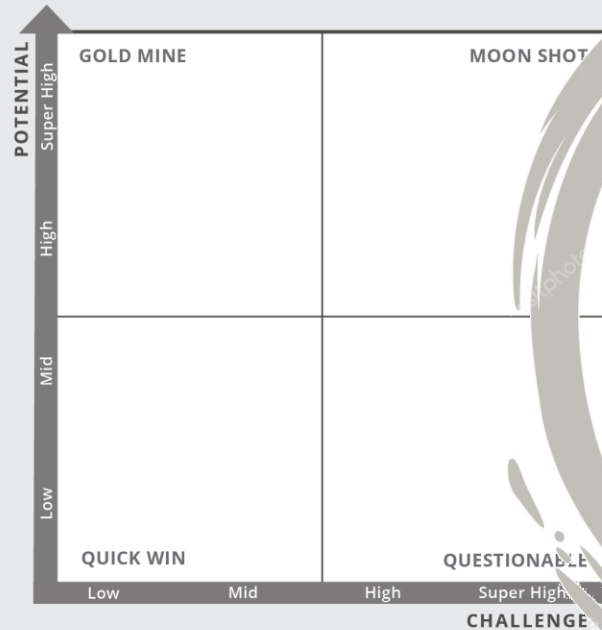
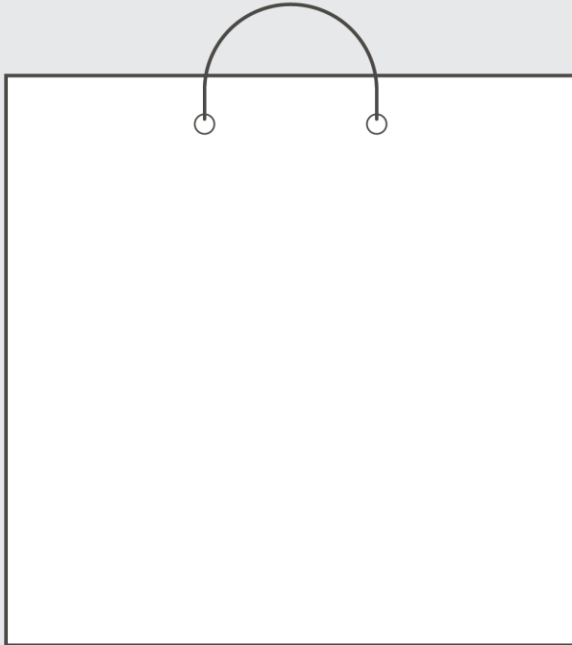
Step 3: prioritizing multiple opportunities



THE MARKET OPPORTUNITY NAVIGATOR

NAME

DATE



MARKET OPPORTUNITY SET

- 1 Use Worksheet 1 to identify potential market opportunities, and place them in the set

ATTRACTIVENESS MAP

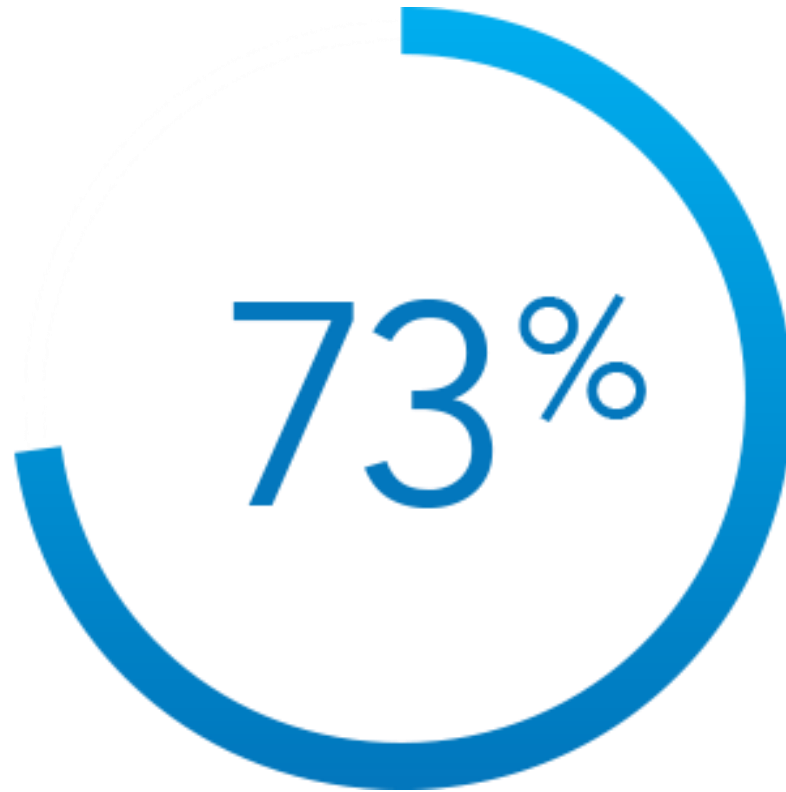
- 2 Use Worksheet 2 to evaluate the attractiveness of each market opportunity, and place each one on the map

- 3 Use Worksheet 3 to evaluate the focus strategy, and mark it on the dartboard



market opportunity = any combination of application + customer
Use sticky-notes™ to represent each market opportunity

Market Pivots in Start-ups



The business world is unpredictable



Conditions of uncertainty require a different strategic approach

In established firms

Robust Adaptive Strategies/ Eric Beinhocker:

Betting on multiple horses

“Companies should be cultivating a portfolio of strategies that contains near-term strategies, the seeds for future growth businesses, and hedges against key uncertainties, rather than pursuing singularly focused strategies that presume predictability”

Sacrifice focus for the sake of flexibility!

The entrepreneurs' challenge

**focus and
stay agile**



The Agile Focus Strategy

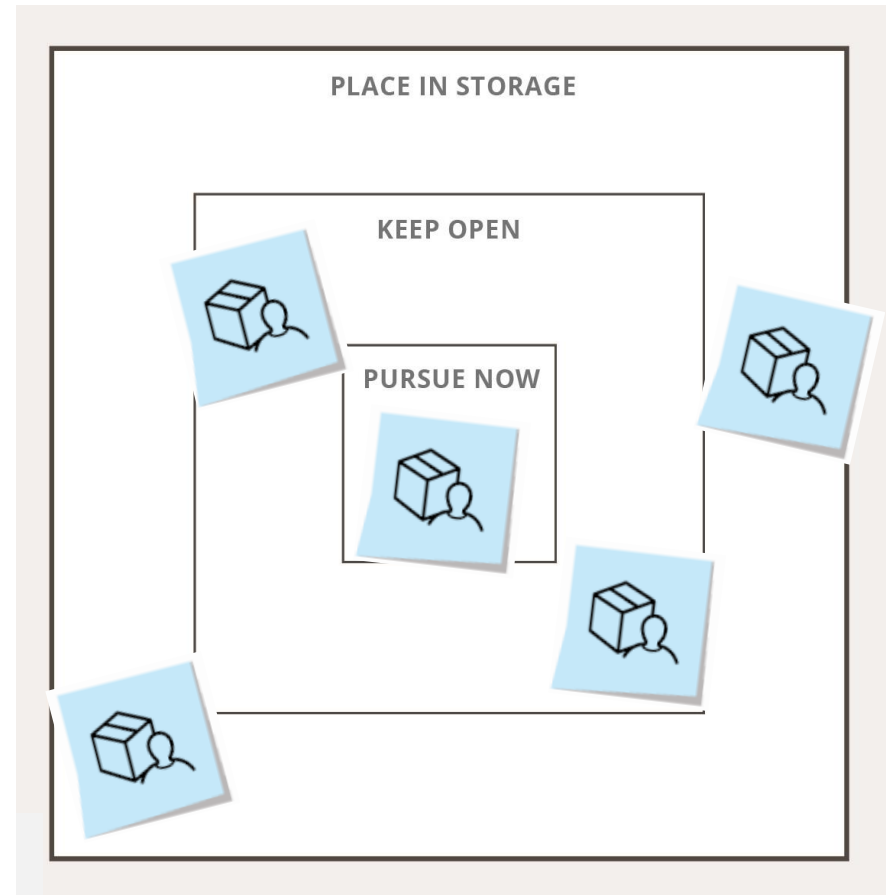
- Set a clear focus
- Design your future roadmap to maintain agility:
keep options open for backup or future growth



The Agile Focus Dashboard

Depicts your Agile Focus Strategy:

- The market opportunities that you pursue now
- The opportunities that you keep open as Backup or Growth options
- The opportunities that you place in storage



The investors perspective: show focus and maneuverability



Reid Hoffman

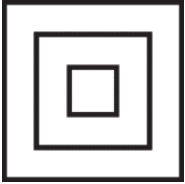
(Co-Founder and Executive Chairman of LinkedIn
and a partner at Greylock Venture Capital):

“

...you want to **show focus** in your decks by emphasizing what you're really betting on. However, **show some maneuverability**.

Don't just say that you have five different options. Instead, say that you're doing one, but you also have some fall-back or maneuvering options.”

The power of foresight



Having foresight on where you could grow next has significant implications on how you build and design your business. It influences the way you:

- Develop your technology
- File your patents
- Recruit your employees
- Choose your stakeholders
- Build your company culture
- Pick your brand name
- Design your marketing materials



Don't get trapped



Build a smart portfolio around your Primary Market Opportunity to mitigate your risk and increase your value.

I. Choose a Primary Market Opportunity to focus on (based on the Attractiveness Map).



II. Pick other attractive market opportunities from your set to examine possible Backup and Growth Options.



Relatedness to your Primary Market Opportunity:

PRODUCT RELATEDNESS

To what extent do the products share: technological competences, required resources, necessary networks



MARKET RELATEDNESS

To what extent do the customers share: values and benefits, sales channels, word-of-mouth



Suitable as:

BACKUP OPTION

Attractive market opportunities that do not share major risks with your Primary Market Opportunity to allow for a change in direction

 Backup

 Backup

 Backup

GROWTH OPTION

Attractive market opportunities that allow your business to create additional value

 Growth

 Growth

 Growth

III. Design your Agile Focus Strategy:

- Keep at least one Backup and one Growth Option open
- Decide if any option is worth pursuing now
- Place the rest in storage

 Pursue now

 Keep open

 Place in storage

 Pursue now

 Keep open

 Place in storage

 Pursue now

 Keep open

 Place in storage


Mark your strategy on the Agile Focus Dartboard.

Build a smart portfolio around your Primary Market Opportunity to mitigate your risk and increase your value.

I. Choose a Primary Market Opportunity to focus on (based on the Attractiveness Map).

II. Pick other attractive market opportunities from your set to examine possible Backup and Growth Options.

| | | |
|--|--|--|
| | | |
|--|--|--|

Relatedness to your Primary Market Opportunity:

PRODUCT RELATEDNESS

To what extent do the products share: technological competences, required resources, necessary networks

| | | |
|--|--|--|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
|--|--|--|

MARKET RELATEDNESS

To what extent do the customers share: values and benefits, sales channels, word-of-mouth

| | | |
|--|--|--|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
|--|--|--|

Suitable as:

BACKUP OPTION

Attractive market opportunities that do not share major risks with your Primary Market Opportunity to allow for a change in direction

| | | |
|---------------------------------|---------------------------------|---------------------------------|
| <input type="checkbox"/> Backup | <input type="checkbox"/> Backup | <input type="checkbox"/> Backup |
|---------------------------------|---------------------------------|---------------------------------|

GROWTH OPTION

Attractive market opportunities that allow your business to create additional value

| | | |
|---------------------------------|---------------------------------|---------------------------------|
| <input type="checkbox"/> Growth | <input type="checkbox"/> Growth | <input type="checkbox"/> Growth |
|---------------------------------|---------------------------------|---------------------------------|

III. Design your Agile Focus Strategy:

- Keep at least one Backup and one Growth Option open
- Decide if any option is worth pursuing now
- Place the rest in storage

| | | |
|--|--|--|
| <input type="checkbox"/> Pursue now <input type="checkbox"/> Keep open <input type="checkbox"/> Place in storage | <input type="checkbox"/> Pursue now <input type="checkbox"/> Keep open <input type="checkbox"/> Place in storage | <input type="checkbox"/> Pursue now <input type="checkbox"/> Keep open <input type="checkbox"/> Place in storage |
|--|--|--|

Build a smart portfolio around your Primary Market Opportunity to mitigate your risk and increase your value.

I. Choose a Primary Market Opportunity to focus on (based on the Attractiveness Map).



II. Pick other attractive market opportunities from your set to examine possible Backup and Growth Options.



Relatedness to your Primary Market Opportunity:

PRODUCT RELATEDNESS

To what extent do the products share: technological competences, required resources, necessary networks

MARKET RELATEDNESS

To what extent do the customers share: values and benefits, sales channels, word-of-mouth

Suitable as:

BACKUP OPTION

Attractive market opportunities that do not share major risks with your Primary Market Opportunity to allow for a change in direction

 Backup

 Backup

 Backup

GROWTH OPTION

Attractive market opportunities that allow your business to create additional value

 Growth

 Growth

 Growth

III. Design your Agile Focus Strategy:

- Keep at least one Backup and one Growth Option open
- Decide if any option is worth pursuing now
- Place the rest in storage

 Pursue now Keep open Place in storage

 Pursue now Keep open Place in storage

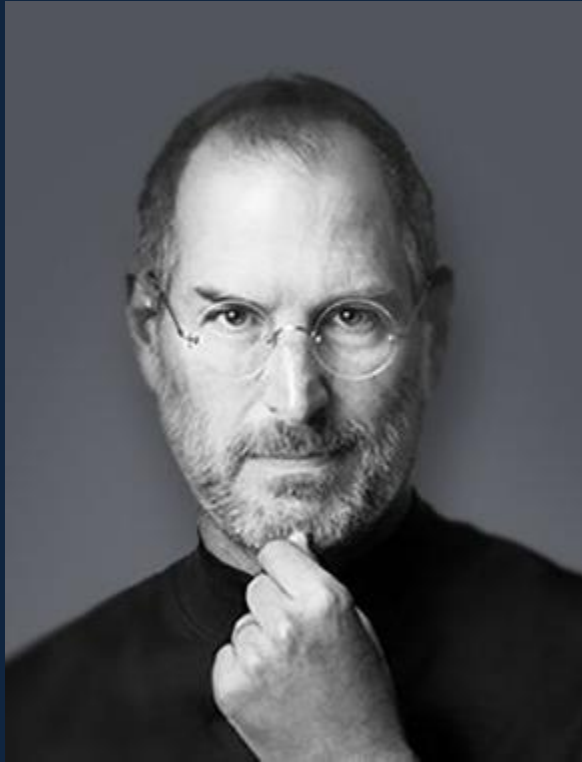
 Pursue now Keep open Place in storage


Mark your strategy on the Agile Focus Dartboard.

Choosing your primary market opportunity



You cannot pursue too many opportunities in parallel, or you may end up really sick...

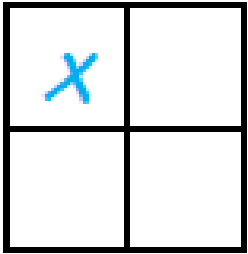


“The hardest thing when you think about focusing. You think focusing is about saying yes. No, focusing is about saying no”

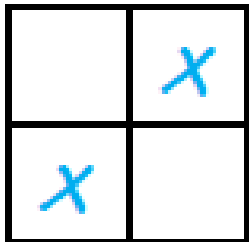
Steve Jobs

Choosing your primary Market Opportunity

Common patterns of the Attractiveness Map:



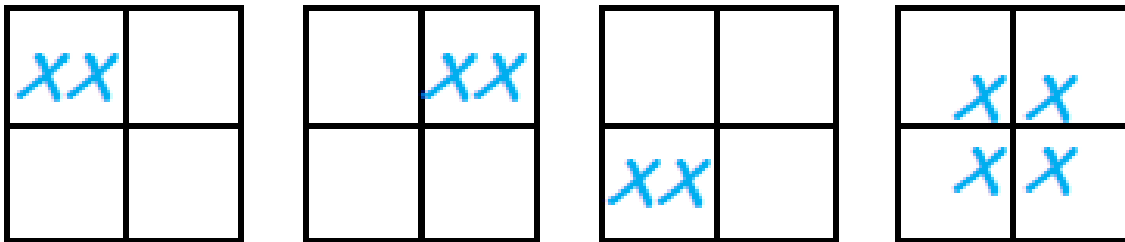
One Clearly Superior Opportunity



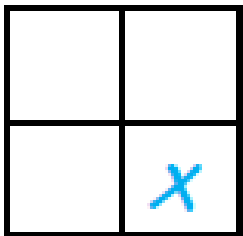
Diagonal Trade-off

Choosing your primary Market Opportunity

Common patterns of the Attractiveness Map:



Options are all Closely Located



No Attractive Options

Other considerations for choosing your Primary Market Opportunity

Personal fit with the opportunity

Fit with stakeholders' interest

Resource constraints

Back to Flyability



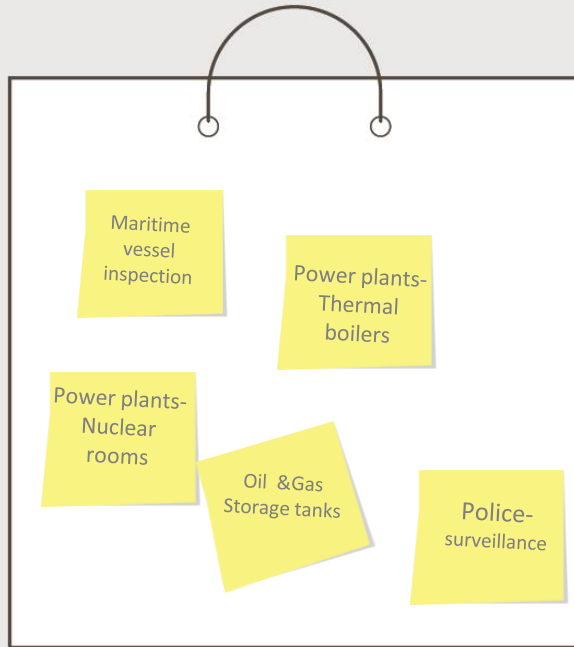
THE MARKET OPPORTUNITY NAVIGATOR

NAME

DATE

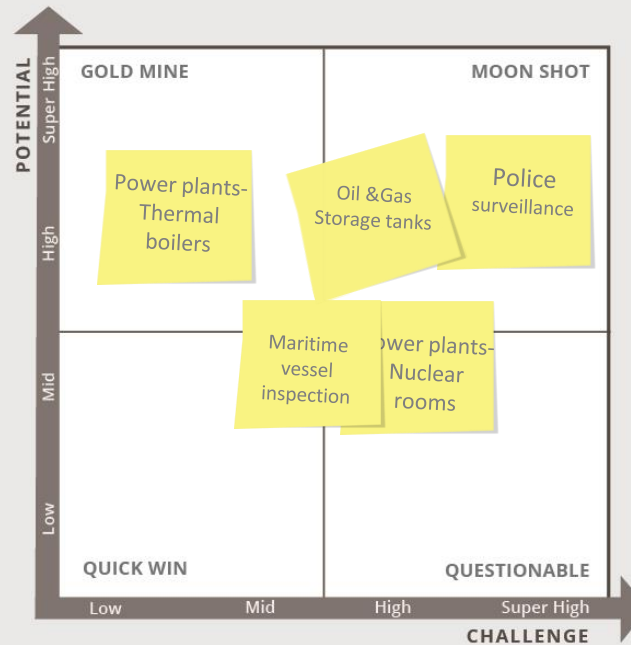
Flyability

2015



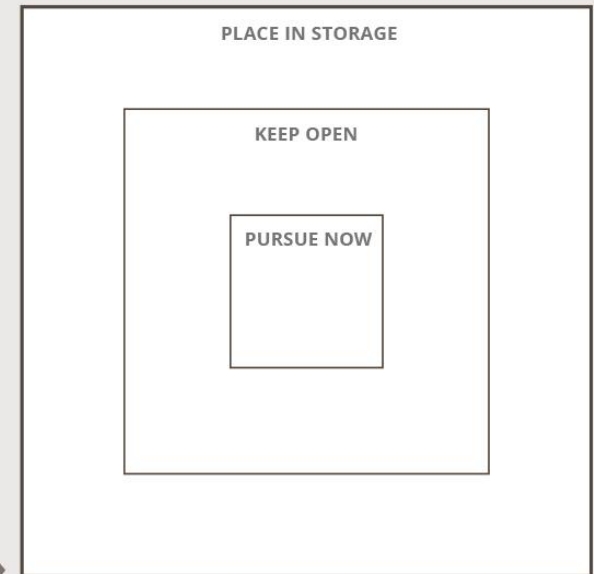
MARKET OPPORTUNITY SET

- 1 Use Worksheet 1 to identify potential market opportunities, and place them in the set



ATTRACTIVENESS MAP

- 2 Use Worksheet 2 to evaluate the attractiveness of each market opportunity, and place each one on the map



AGILE FOCUS DARTBOARD

- 3 Use Worksheet 3 to design your Agile Focus strategy, and mark it on the dartboard



market opportunity = any combination of application + customer
Use sticky-notes™ to represent each market opportunity

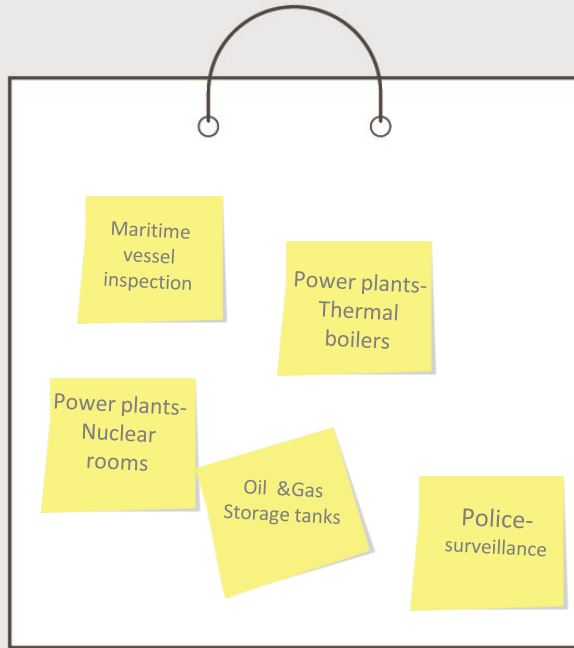
THE MARKET OPPORTUNITY NAVIGATOR

NAME

DATE

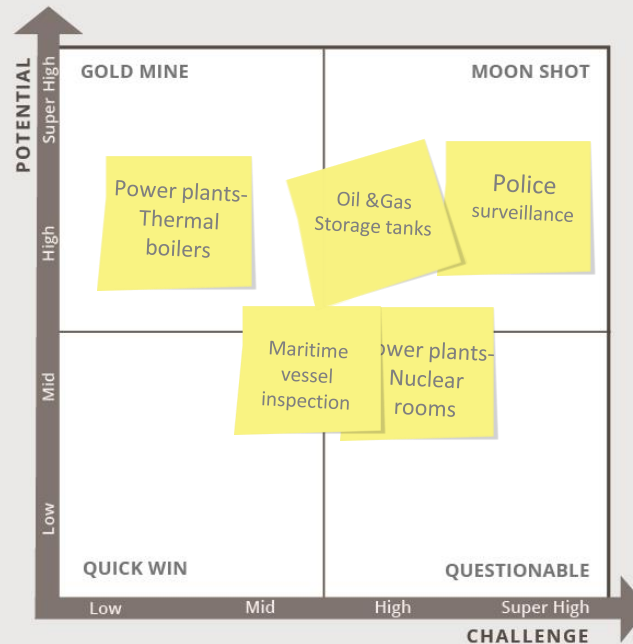
FlyAbility

2015



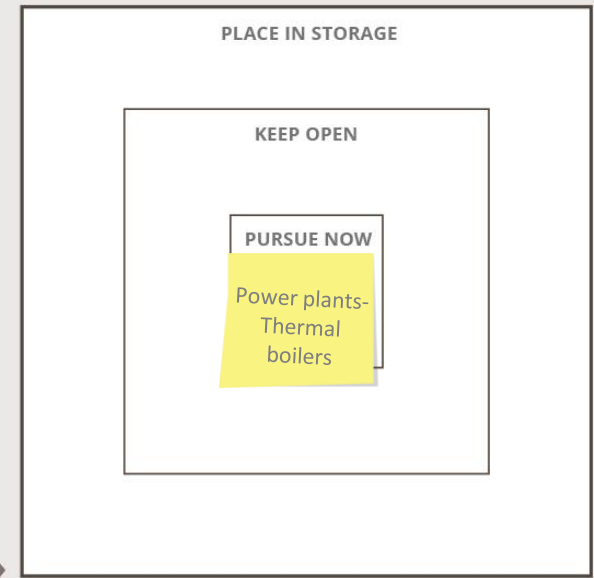
MARKET OPPORTUNITY SET

- 1 Use Worksheet 1 to identify potential market opportunities, and place them in the set



ATTRACTIVENESS MAP

- 2 Use Worksheet 2 to evaluate the attractiveness of each market opportunity, and place each one on the map



AGILE FOCUS DARTBOARD

- 3 Use Worksheet 3 to design your Agile Focus strategy, and mark it on the dartboard



market opportunity = any combination of application + customer
Use sticky-notes™ to represent each market opportunity



DESIGN YOUR AGILE FOCUS STRATEGY

NAME

DATE

Flyability

Build a smart portfolio around your Primary Market Opportunity to mitigate your risk and increase your value.

I. Choose a Primary Market Opportunity to focus on (based on the Attractiveness Map).



Power plants – thermal boilers

II. Pick other attractive market opportunities from your set to examine possible Backup and Growth Options.



Relatedness to your Primary Market Opportunity:

PRODUCT RELATEDNESS

To what extent do the products share: technological competences, required resources, necessary networks



MARKET RELATEDNESS

To what extent do the customers share: values and benefits, sales channels, word-of-mouth



Suitable as:

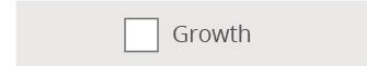
BACKUP OPTION

Attractive market opportunities that do not share major risks with your Primary Market Opportunity to allow for a change in direction



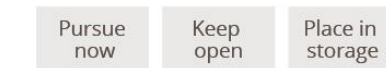
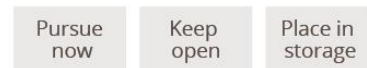
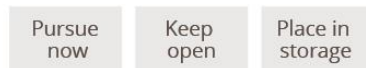
GROWTH OPTION

Attractive market opportunities that allow your business to create additional value



III. Design your Agile Focus Strategy:

- Keep at least one backup and one growth option open
- Decide which options (if any) to pursue now
- Place the rest in storage



Mark your strategy on the Agile Focus Dartboard.

Few tips for making this profound decision



There is no 'perfect' option



Make it a team decision



Take your time

Designing a smart portfolio

Keep open at least one Backup Option and one Growth Option

A Backup Option

allows you to change direction over time, if necessary.



It answers the question:

If we are not successful - what shall we do next?

A Growth Option

allows you to create additional value over time.



It answers the question:

If we are successful - what shall we do next?

What makes a good backup option?

A Backup Option

allows you to change direction over time, if necessary.



It answers the question:

If we are not successful - what shall we do next?



A related opportunity that does not share major risks with the primary market

What makes a good growth option?

A Backup Option

allows you to change direction over time, if necessary.



It answers the question:

If we are not successful - what shall we do next?



A related opportunity that does not share major risks with the primary market

A Growth Option

allows you to create additional value over time.



It answers the question:

If we are successful - what shall we do next?



An attractive opportunity that is tightly related to your primary market

What makes a good backup / growth option?

1) Assessing relatedness to your Primary Opportunity

The more related your options are to your Primary Market Opportunity, the less effort will be required to keep them open

Product Relatedness

the extent to which the *development* of the two products requires similar resources and capabilities.



Market Relatedness

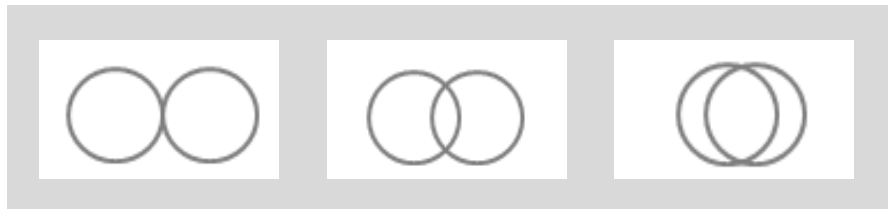
the extent to which the *marketing and distribution* of the two products require similar resources and capabilities.



Assessing Product Relatedness

To what extent do the products share...

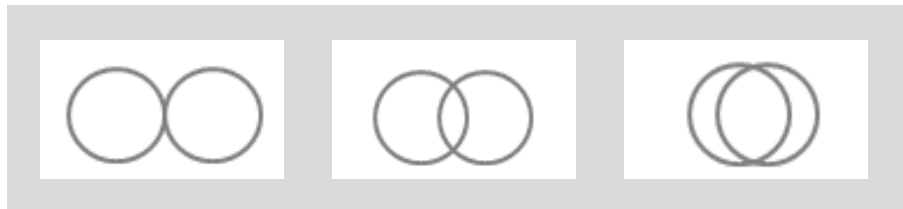
- ✓ Technological competences? (i.e., the functions and features of the products rely on similar technological developments)
- ✓ Required resources? (i.e., employees, manufacturing equipment, intellectual property etc.)
- ✓ Necessary networks? (i.e., suppliers, partners, or other members of the value chain)



Assessing Market Relatedness

To what extent do the customers share...

- ✓ Values and benefits? (i.e., you can leverage your brand and reputation from one market to the other)
- ✓ Sales channels? (i.e., you can utilize the same distribution channels for both markets)
- ✓ Word of mouth? (i.e., satisfied customers in one market can promote your product in the other)





DESIGN YOUR AGILE FOCUS STRATEGY

NAME

DATE

Flyability

Build a smart portfolio around your Primary Market Opportunity to mitigate your risk and increase your value.

I. Choose a Primary Market Opportunity to focus on (based on the Attractiveness Map).



Power plants – thermal boilers

II. Pick other attractive market opportunities from your set to examine possible Backup and Growth Options.



Oil & Gas Storage tanks



Maritime vessel inspection



Police surveillance

Relatedness to your Primary Market Opportunity:

PRODUCT RELATEDNESS

To what extent do the products share: technological competences, required resources, necessary networks



MARKET RELATEDNESS

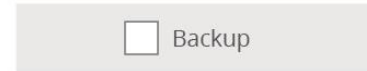
To what extent do the customers share: values and benefits, sales channels, word-of-mouth



Suitable as:

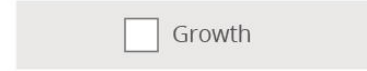
BACKUP OPTION

Attractive market opportunities that do not share major risks with your Primary Market Opportunity to allow for a change in direction



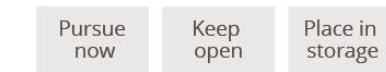
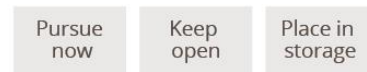
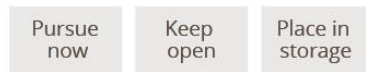
GROWTH OPTION

Attractive market opportunities that allow your business to create additional value



III. Design your Agile Focus Strategy:

- Keep at least one backup and one growth option open
- Decide which options (if any) to pursue now
- Place the rest in storage



Mark your strategy on the Agile Focus Dartboard.

What makes a good backup / growth option?

2) Assessing major risks and show stoppers



Backup options constitute your Plan B, so they should not share the same major risks with your Primary Market Opportunity, or rely on the same major assumptions.

Some opportunities can serve as your Backup Option *and* as your Growth Option



DESIGN YOUR AGILE FOCUS STRATEGY

NAME

DATE

Flyability

Build a smart portfolio around your Primary Market Opportunity to mitigate your risk and increase your value.

I. Choose a Primary Market Opportunity to focus on (based on the Attractiveness Map).



Power plants – thermal boilers

II. Pick other attractive market opportunities from your set to examine possible Backup and Growth Options.



Oil & Gas Storage tanks



Maritime vessel inspection



Police surveillance

Relatedness to your Primary Market Opportunity:

PRODUCT RELATEDNESS

To what extent do the products share: technological competences, required resources, necessary networks



MARKET RELATEDNESS

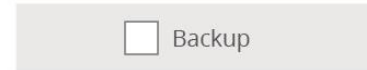
To what extent do the customers share: values and benefits, sales channels, word-of-mouth



Suitable as:

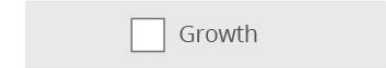
BACKUP OPTION

Attractive market opportunities that do not share major risks with your Primary Market Opportunity to allow for a change in direction



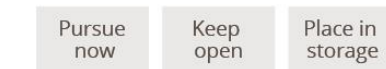
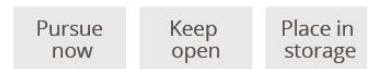
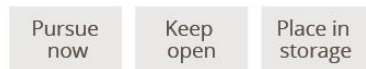
GROWTH OPTION

Attractive market opportunities that allow your business to create additional value



III. Design your Agile Focus Strategy:

- Keep at least one backup and one growth option open
- Decide which options (if any) to pursue now
- Place the rest in storage



Mark your strategy on the Agile Focus Dartboard.

Keep at least one backup and growth option open

Allocate little resources and attention to keep this opportunity 'breathing', and not to lock yourself out of it:

- ✓ Stay informed
- ✓ Build flexible resources and capabilities
- ✓ Develop an appropriate identity



Pursuing opportunities in parallel?

Makes sense for early-stage startups under 2 conditions



Your primary market is highly uncertain



The opportunities are tightly related

Example



MILITARY



LAW ENFORCEMENT



What about all the other market opportunities?





DESIGN YOUR AGILE FOCUS STRATEGY

NAME

DATE

Flyability

Build a smart portfolio around your Primary Market Opportunity to mitigate your risk and increase your value.

I. Choose a Primary Market Opportunity to focus on (based on the Attractiveness Map).



Power plants – thermal boilers

II. Pick other attractive market opportunities from your set to examine possible Backup and Growth Options.



Oil & Gas Storage tanks



Maritime vessel inspection



Police surveillance

Relatedness to your Primary Market Opportunity:

PRODUCT RELATEDNESS

To what extent do the products share: technological competences, required resources, necessary networks



MARKET RELATEDNESS

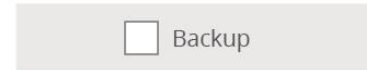
To what extent do the customers share: values and benefits, sales channels, word-of-mouth



Suitable as:

BACKUP OPTION

Attractive market opportunities that do not share major risks with your Primary Market Opportunity to allow for a change in direction



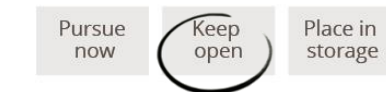
GROWTH OPTION

Attractive market opportunities that allow your business to create additional value



III. Design your Agile Focus Strategy:

- Keep at least one backup and one growth option open
- Decide which options (if any) to pursue now
- Place the rest in storage



Mark your strategy on the Agile Focus Dartboard.

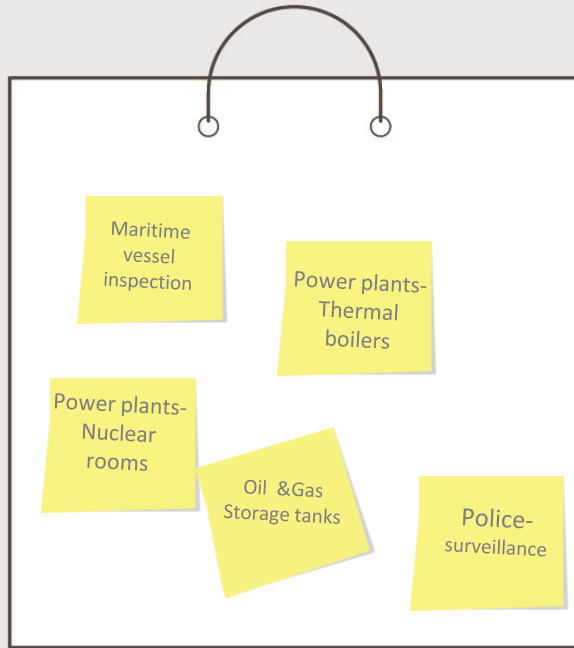
THE MARKET OPPORTUNITY NAVIGATOR

NAME

DATE

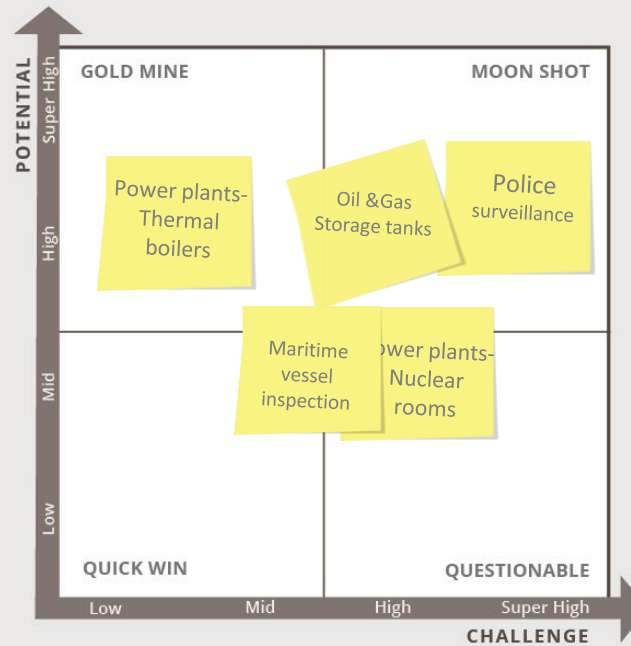
FlyAbility

2015



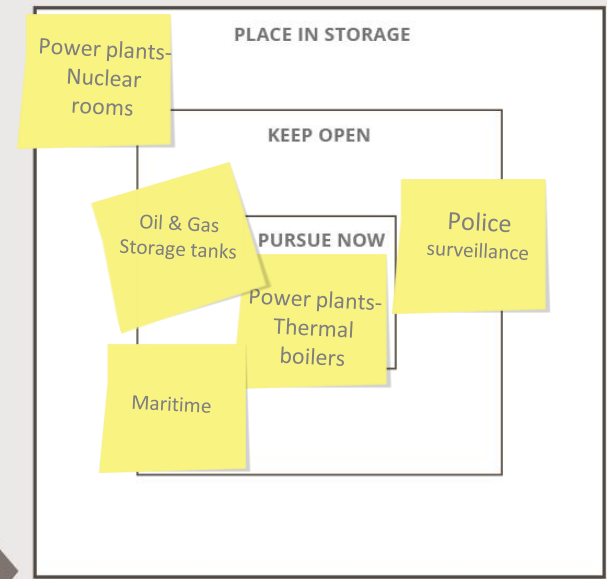
MARKET OPPORTUNITY SET

- 1 Use Worksheet 1 to identify potential market opportunities, and place them in the set



ATTRACTIVENESS MAP

- 2 Use Worksheet 2 to evaluate the attractiveness of each market opportunity, and place each one on the map



AGILE FOCUS DARTBOARD

- 3 Use Worksheet 3 to design your Agile Focus strategy, and mark it on the dartboard



market opportunity = any combination of application + customer
Use sticky-notes™ to represent each market opportunity

Remember:



The Market Opportunity Navigator is designed to be **a dynamic tool.**

Therefore, you can add or dismiss options as you move forward with your learning and build your understanding.

Questions?



Now its your turn

- ✓ Apply Worksheet 3 to set your commercialization foresight
 - ✓ What do you think should be your primary market? why?
 - ✓ Do you have candidates for backup or future growth?
 - ✓ Mark your strategic foresight on the dartboard
- ✓ Prepare your wrap up presentation according to the following guidelines



Deliverables:

- ✓ A 15 mins presentation summarizing your learning process from this week

Guidelines for your business presentation



Overview

- The final presentation should summarize the learning process that you have gone through during this seminar
- You can follow the template provided on Moodle (under session 4)
- Try to back your analysis with data and mention your sources. If you cant find supporting data- explain your assumptions and why you made them
- Each team will have 15 mins to present + Q&A

The presentation should include the following sections:

■ Step 1- your Market Opportunity Set:

Describe shortly the key components of your technology, the applications and customers that you discovered and how you chose your Market Opportunity Set

■ Step 2- your Attractiveness Map:

Present the evaluation of your market opportunities: Describe shortly who are your customers and what is your value proposition, who did you interview, how did you evaluate the Potential and the Challenge of this opportunity, and where is it located on the Attractiveness Map.

■ Step 3- your Agile Focus Strategy:

Describe shortly what is your Primary Market Opportunity, which opportunities do you plan to keep open as Backup or Growth options, and why

■ Your takeaways

What are your takeaways from this process?

If you wish to further explore this innovation: what should be your next steps?

Transversal skills: day-by-day follow up

Transversal skills: day-by-day follow up

As we wrap-up each day, please share with us (anonymously) if you feel you worked on any of the transversal skills today.

Thanks,
Sharon

Date

Month, day, year



Please select those skills that you feel you worked on today (you can select more than one option)

- Communication and presentation
- Team work and interdisciplinary collaboration
- Impact-driven leadership
- Learning from others

Link to Google form: <https://forms.gle/mWgPKdQAEFaakA9q9>