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Empowering Women in STEM

Hi, I’m Marharyta!

Short story: YEP, KAI, Win-Win
EDIH, youth activism

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In 3 sessions, we'll cover 8 topics

[01]
Startup thinking
[today]

[02]
Design thinking
[today]

[03]
Customer discovery
[today]

[04]
Team
[11.11]

[05]
Prototyping
[11.11]

[06]
Comms
[11.11]

[07]
Pitching
[25.11]

[08]
Networking & funding
[25.11]

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Startup thinking

01 / How startups work, who can help, and where ideas come from

Marharyta Chernyshova · YEP Accelerator

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By the end of today, you will have…

01

a clearer idea
of what a startup is

02

a map of where
to find support

03

one problem
worth exploring

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What makes a *startup a startup?*

Name two or three projects you think are startups.
What makes you say so?

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What is a startup?

A team searching for a way to solve an important problem

so the solution can work for many people or customers.

At the beginning, many things are still unknown.

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a simple working definition for this course

Startup / traditional business

STARTUP

searching for a repeatable, scalable model

high uncertainty at the beginning

TRADITIONAL BUSINESS

can work with a known or local model

growth does not have to be scalable

One is not automatically better than the other.

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At the beginning, these are hypotheses.

[USER]

Who uses it?

[PROBLEM]

Is the problem serious?

[SOLUTION]

What solution helps?

[CUSTOMER]

Who pays?

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The team tests assumptions instead of treating them as facts.

What the startup journey can look like

01 problem / opportunity

02 validation

03 solution

04 prototype

05 first users / pilots

06 next step

teams regularly return and retest assumptions

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Uncertainty *is normal.*

A small test teaches more than a long-built “perfect” version.

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Make a small test. Look for evidence.

01

Assumption

What do we think is true?

02

Small test

What could help us check it?

03

Signal

What actually happened?

04

Next decision

What should change?

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What did we learn?

What does it change in our next decision?

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Who can help at each step?

University · lab · incubator · mentor

knowledge, infrastructure, first help

Users, communities, pilot partners

real context and honest feedback

You & your idea

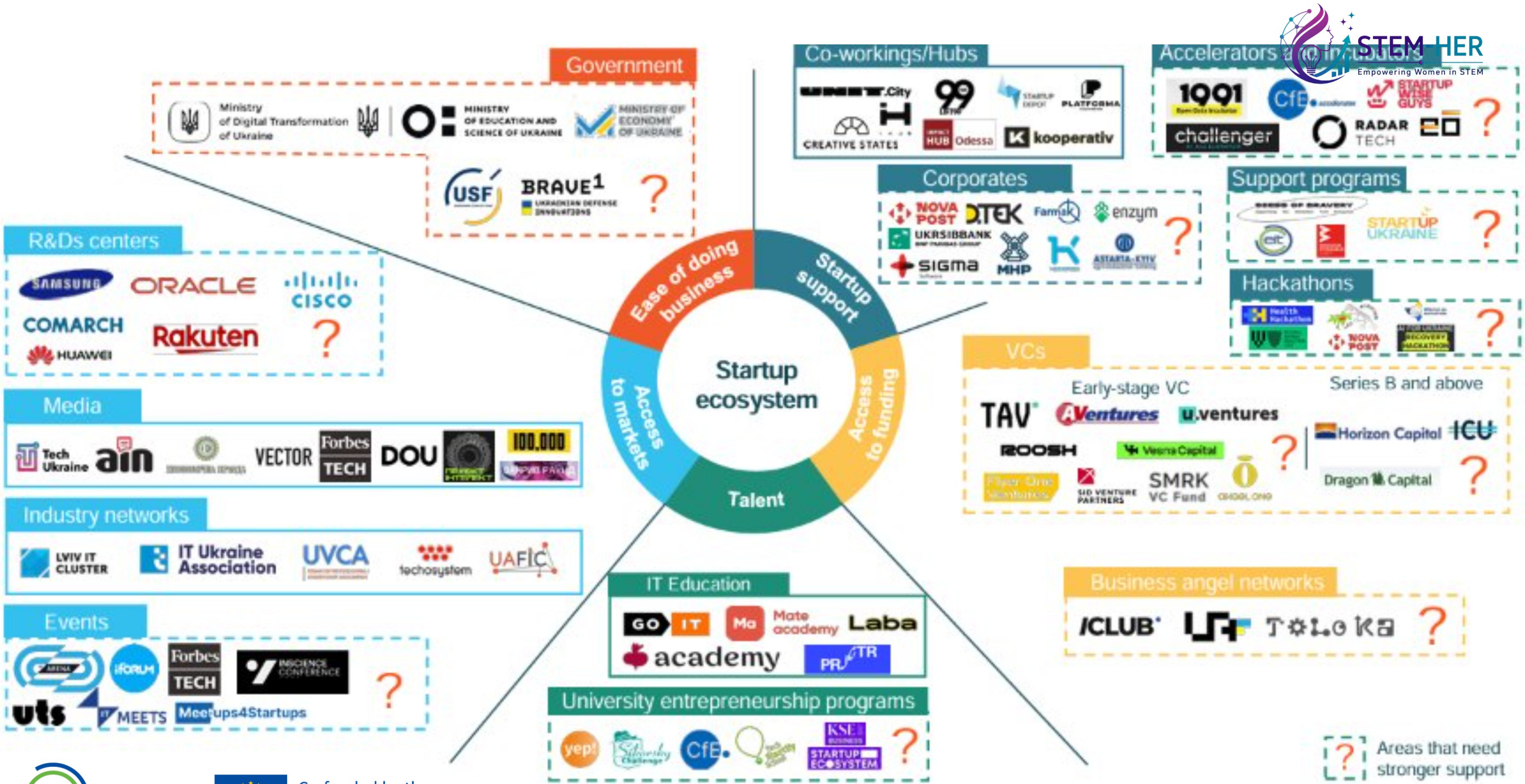
Grants & other funding

once you know what it is for

Events & international programmes

contacts, visibility, other ecosystems

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What resource do I need next?

knowledge

feedback

access to people

funding

You do not need to know every programme.

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Where do startup ideas come from?

01

Problem-first

a recurring frustration or an unmet need

02

Technology-first

research, invention or a technical capability

03

Expertise / access

a context or process you know well

STEM and research teams can start from technology.

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Sirocco Energy

Reliable energy for businesses

Rising power costs and outages create a need for local generation.

Could quiet wind power help?

[THE TURBINE]



Compact wind power for local generation

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Releaf Paper

Paper made from fallen leaves

A school chemistry project grew into a sustainable packaging business.

Where is the value — and for whom?



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INPUT SOFT

Airport operations software

Built by specialists who knew airport operations from within.

NAU (now KAI) alumni
+ YEP graduates



inputsoft.net · Photo: Anastasiia Smyk / LinkedIn

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Technology-first *is a valid start.*

Next question: where does this create value, for whom, and in what situation?

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An idea for an app is already a solution.

SOLUTION STATEMENT

"Students need another timetable app."

TESTABLE SITUATION

"After changes, students spend
40 minutes finding the current timetable."

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Illustrative example from the lecture notes; 40 minutes is not a measured finding.

Try this simple structure.

[WHO]

Who experiences it?

[TASK]

What are they trying to do?

[FRICTION]

What gets in the way?

[NOW]

How do they manage today?

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Explore more than *one problem.*

You can choose a direction after looking for evidence.

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From observations to a working problem

1
Problem radar

2
My starting point

3
Shortlist

4
Working problem

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Open the 01 Startup Thinking worksheet · 20–25 minutes.

Problem radar

Where?	What is not working?	For whom?	Current workaround?

write down a situation you have observed.

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My starting point

What do I already have?

knowledge · technology · research · personal experience

Which people and environments can I access?

laboratory · profession · communities · potential users

Starting from technology or expertise is fine.

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A shortlist of problems

Problem / use case	Frequency	Importance	Access	My advantage

Use 1–5 ratings as a way to compare. They are not objective truth.

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My working problem

01
Who has the problem?

02
What exactly happens?

03
Why does it matter?

04
What am I still assuming?

Then name the first fact or person you want to check with.

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Make it *testable.*

Take 2–3 ideas from the room. Move from “I want to build X” to a problem we can actually check.

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Technology-first still ends in a problem.

TECHNOLOGY

“We have a low-cost sensor that can track water quality all the time.”

TESTABLE SITUATION

“Small greenhouses check water by hand and irregularly, so changes show up only once plants suffer.”

Then check: who controls the water, how often, what they do now, what a late signal costs.

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Find five more examples.

WHO	HOW OFTEN	TODAY
Who has this problem?	How often does it occur?	How do people solve it now?

If the evidence changes your view, rewrite the problem.

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Self-study · approximately 1 hour.

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If you want to connect, also use Linkedin

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Thank you!

Any questions? You can reach out to

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