

CURRENT GLOBAL EFFORTS RELATED TO SUSTAINABLE DEVELOPMENT GOALS

- The **Sustainable Development Goals (SDGs)**, otherwise known as the **GlobalGoals**, are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.



Rising seas. Fleeing residents. Disappearing villages. Our sinking planet. UN Secretary-General António Guterres interviewed for TIME Magazine. Photo credit: © TIME Magazine

CLIMATE CHANGE CAN PROVE THE VALUE OF COLLECTIVE ACTION

UN Secretary-General António Guterres, in an [interview for TIME Magazine](#), said "Climate change is not a problem for multilateralism, climate change is a problem for us all. But I think climate change offers an opportunity for multilateralism to prove its value."

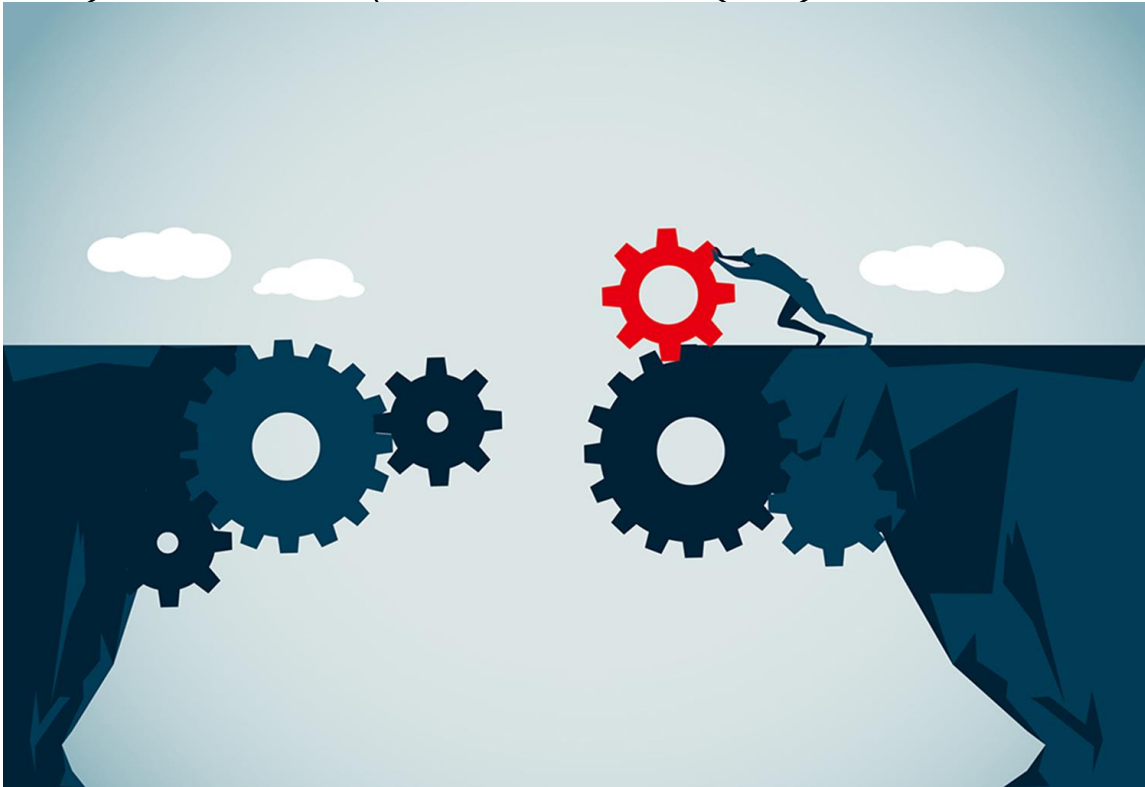
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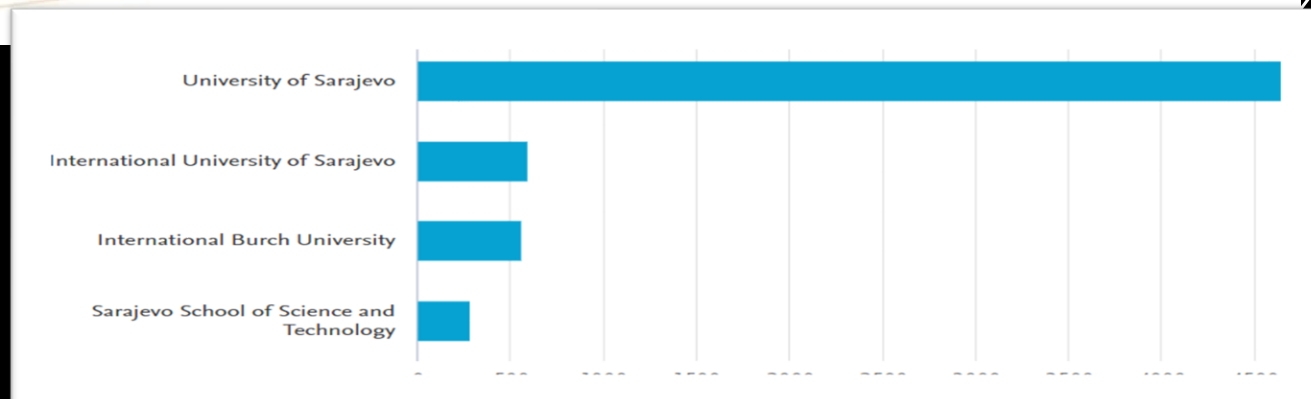
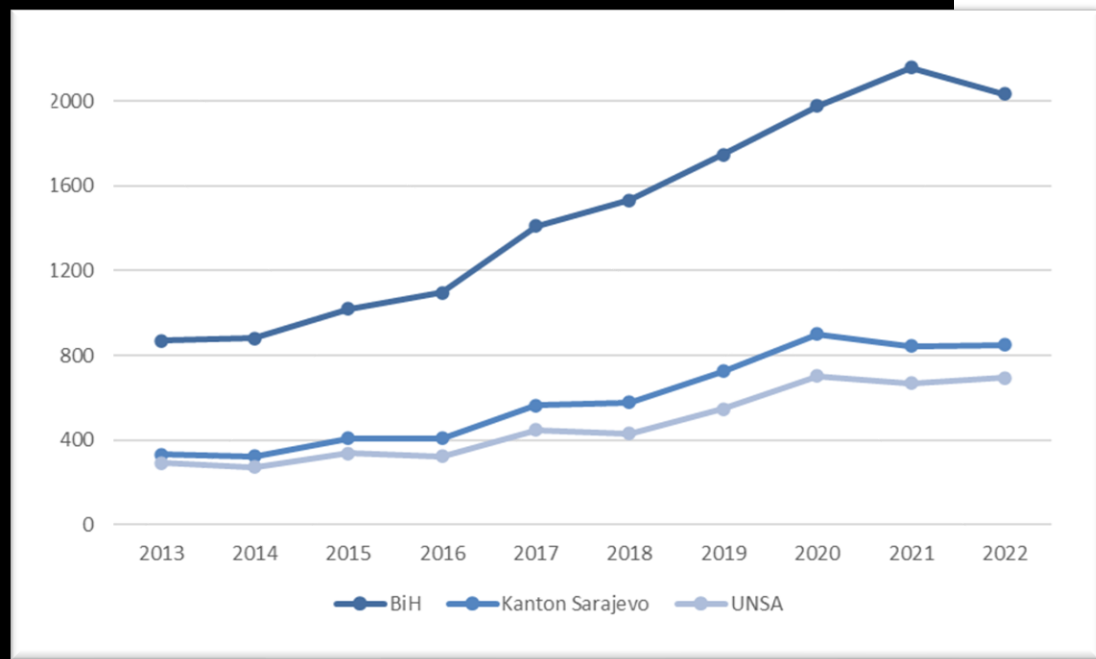
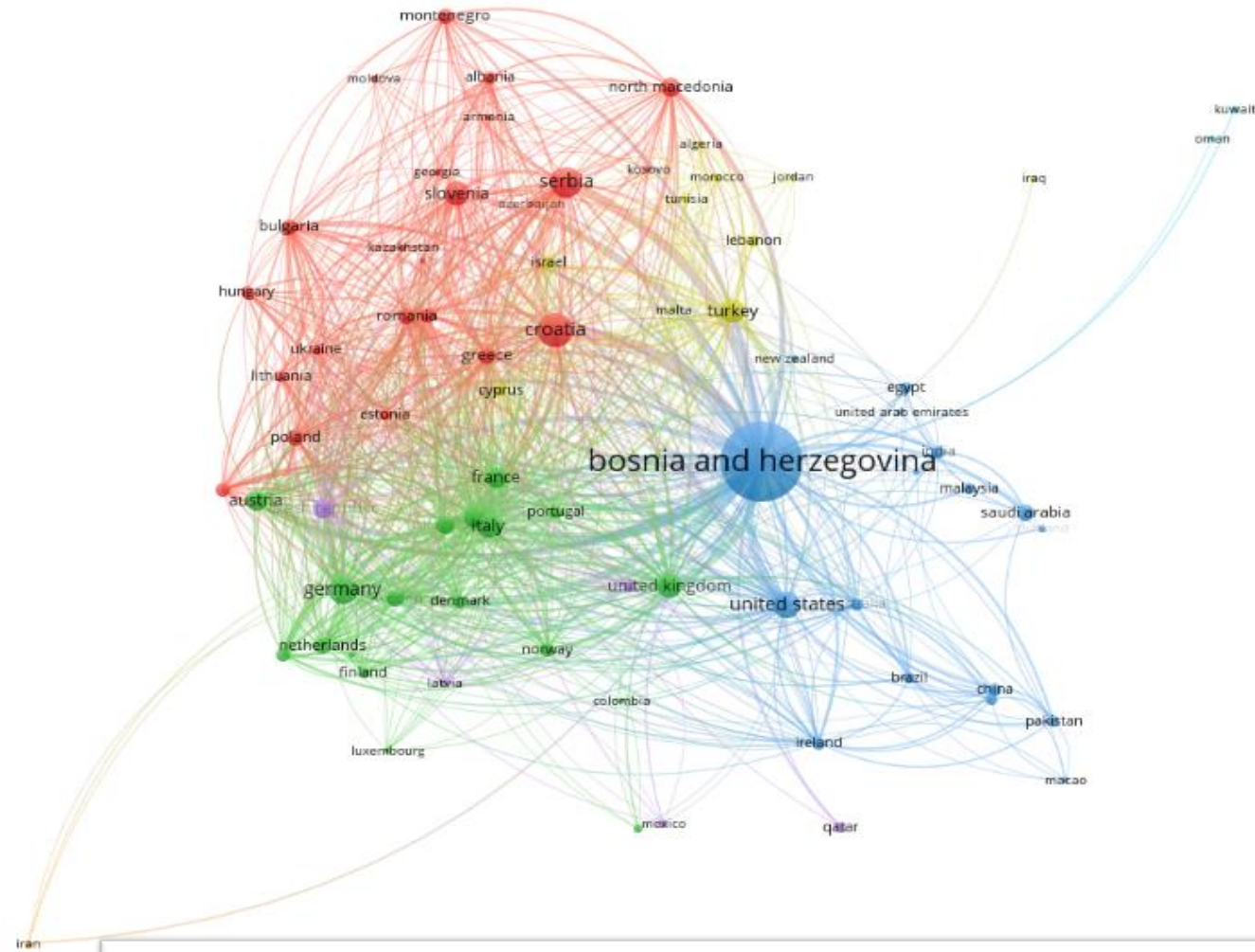
- Climate change is the defining issue of our time and now is the defining moment to do something about it. There is still time to tackle climate change, but it will require an unprecedented effort from all sectors of society (United Nations, 2019)

ÜSİMP ULUSAL PATENT FUARI VE ÜNİVERSİTE-SANAYİ İŞBİRLİĞİ ULUSAL KONGRESİ “Platformlar ile Gelişim Üretelim” 22 - 23 Kasım 2023

R&D AND INNOVATION SYSTEM IN BOSNIA AND HERZEGOVINA

Prof. Dr Lejla Pojskic, Science Advisor
University of Sarajevo – Institute for
Genetic Engineering and Biotechnology





UNIVERSITY OF SARAJEVO

22 Faculties, 3 Academies i 5 Research
Institutes

1,700 staff (teaching and scientific)

Six sections

>400 accredited university programs

200+ departments

25000 students

~ 100 milion EUR Budget





R&D INFRASTRUCTURE

- Framework for research infrastructure roadmap of BiH
- DARIAH – Digital Research Infrastructure for the Arts and Humanities (member since 2021, UNSA coordinator for the period 2021-2024)
- RESILIENCE – Research infrastructure in Religious Studies (H2020/HE projekti, ESFRI 2021)



R&D INVESTMENTS

>13 mil. EUR

Facilities

Sarajevo ion accelerator (1st stage)

Science for Gen Z

BioTech Platform

eUNSA

Equipment:

Mass spectrometer UPLC MS/MS

Genetic analyzer 3500 Series (Applied Biosystems)

Single-particle mass spectrometry (SPMS)

Spitzenberger Spies PD 2190 GV/GSM

Flow cytometer

OUTLINE

- A. Intellectual Property Management System in Bosnia and Herzegovina
- B. Intellectual Property Management System at University of Sarajevo
- C. Spin-off Policies in Bosnia and Herzegovina
- D. Spin-off Policies at the University of Sarajevo

INTELLECTUAL PROPERTY MANAGEMENT SYSTEM IN BOSNIA AND HERZEGOVINA

LEGAL FRAMEWORK

- Highly regulated at the national level
- 11 laws
- 30 bylaws
- Broad set of international conventions and agreements

INTELLECTUAL PROPERTY MANAGEMENT SYSTEM IN BOSNIA AND HERZEGOVINA

LEGISLATION

- (1) Law on the Establishment of the Institute for Intellectual Property of Bosnia and Herzegovina
- (2) Law on Patents
- (3) Law on Trademarks
- (4) Law on Industrial Designs
- (5) Law on the Protection of Indications of Geographical Origin
- (6) Law on the Protection of Topographies of Integrated Circuits
- (7) Law on the Protection of New Varieties of Plants in Bosnia and Herzegovina
- (8) Law on Amendments to the Law on the Protection of New Varieties of Plants in Bosnia and Herzegovina
- (9) Law on Wine, Brandy and Other Grape and Wine Products
- (10) Law on Copyright and Related Rights
- (11) Law on the Collective Management of Copyright and Related Rights

INTELLECTUAL PROPERTY MANAGEMENT SYSTEM IN BOSNIA AND HERZEGOVINA POLICIES

- Rare national-level policies
 - Intellectual property strategy of Bosnia and Herzegovina 2022 – 2026 (IIP + WIPO support) – not adopted yet
- EU Support to IP rights in BiH
 - Capacity building
 - Harmonization with the EU acquis
 - Raising awareness of IP
- EC Report (12/10/2022) – Enlargement Package
 - BiH received candidate status recommendation
 - Report states that BiH is moderately prepared in the IP law area – efforts needed in enforcement and coordination aspects

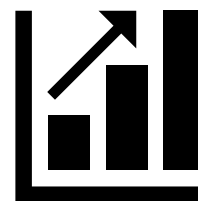


INTELLECTUAL PROPERTY MANAGEMENT SYSTEM IN BOSNIA AND HERZEGOVINA MECHANISMS/INCENTIVES

GENERAL

Low level of IP activities
Great potential for advancing

SCORES



Five positions up – 70 out of 132
economies in Global Innovation
Index report for 2022 (WIPO)

European Innovation Scoreboard
(EIS) includes BiH since 2021 –
enabling participation in regional
innovation scheme of EIT RIS –
recognized as

emerging innovator

CONCRETE INCENTIVES

Nonexistent
Information sharing / awareness
raising activities

INTELLECTUAL PROPERTY MANAGEMENT SYSTEM AT UNSA RULES/LEGISLATION

UNSA Rulebook on the Intellectual Property Management
(May 2022)

1. Scope of the document, definitions, main IP categories
2. Rights share on the IP
3. Main bodies: Intellectual Property Committee and the Intellectual Property Management Office
4. Registration, evaluation and commercialization of IP

<https://cir.unsa.ba/dokumenti/>



INTELLECTUAL PROPERTY MANAGEMENT SYSTEM AT UNSA **POLICIES**

Intellectual Property Management Policy
(July 2019)

INTELLECTUAL PROPERTY MANAGEMENT SYSTEM IN BOSNIA AND HERZEGOVINA MECHANISMS/INCENTIVES

Financing

- Ministry of Science, Higher Education and Youth of Sarajevo Canton increase in funding

UN agencies

- UNDP R&D grants in 2021

EU funded projects

- Policy Answers (Horizon Europe Coordination and Support Action)

Patents

- Institute for Genetic Engineering and Biotechnology (INGEB) has obtained three patents in period 2018 →

USIMP&UNSA COLLABORATION ROADMAP

- Bilateral Agreement between UNSA and USIMP (2022)
- Joint workshop on patent life cycle (March 2023) - Prof. dr. H. Serbest, Prof. dr. F. Vardar and Prof. dr. A.A. Uncuoglu
- Survey on state of the art - USIMP tool adjustment
- Guidelines for development of RD and innovation capacities at UNSA

SPIN-OFF POLICIES IN BOSNIA AND HERZEGOVINA RULES/LEGISLATION

- Highly fragmented area
- No national legislation
- No specific rules/legislation targeted at spin-offs
- General acts supporting entrepreneurship exist (at the entity levels)

generator, charging an electric car.

The future is stupid...



Caption

SPIN-OFF POLICIES IN BOSNIA AND HERZEGOVINA RULES/LEGISLATION

- 
- **The Law on Trade and Related Activities of FBiH (2021)**
 - **The Law on the Promoting the Development of the Small Economy of FBiH (2008)**
 - **The Law on Entrepreneurial Infrastructure FBiH (draft accepted 7 Nov 2023))**
 - **The Law on Craft and Entrepreneurial Activities of RS (2019)**
 - **The Law on Encouraging the Development of Small and Medium-Sized Enterprises of RS (2008)**

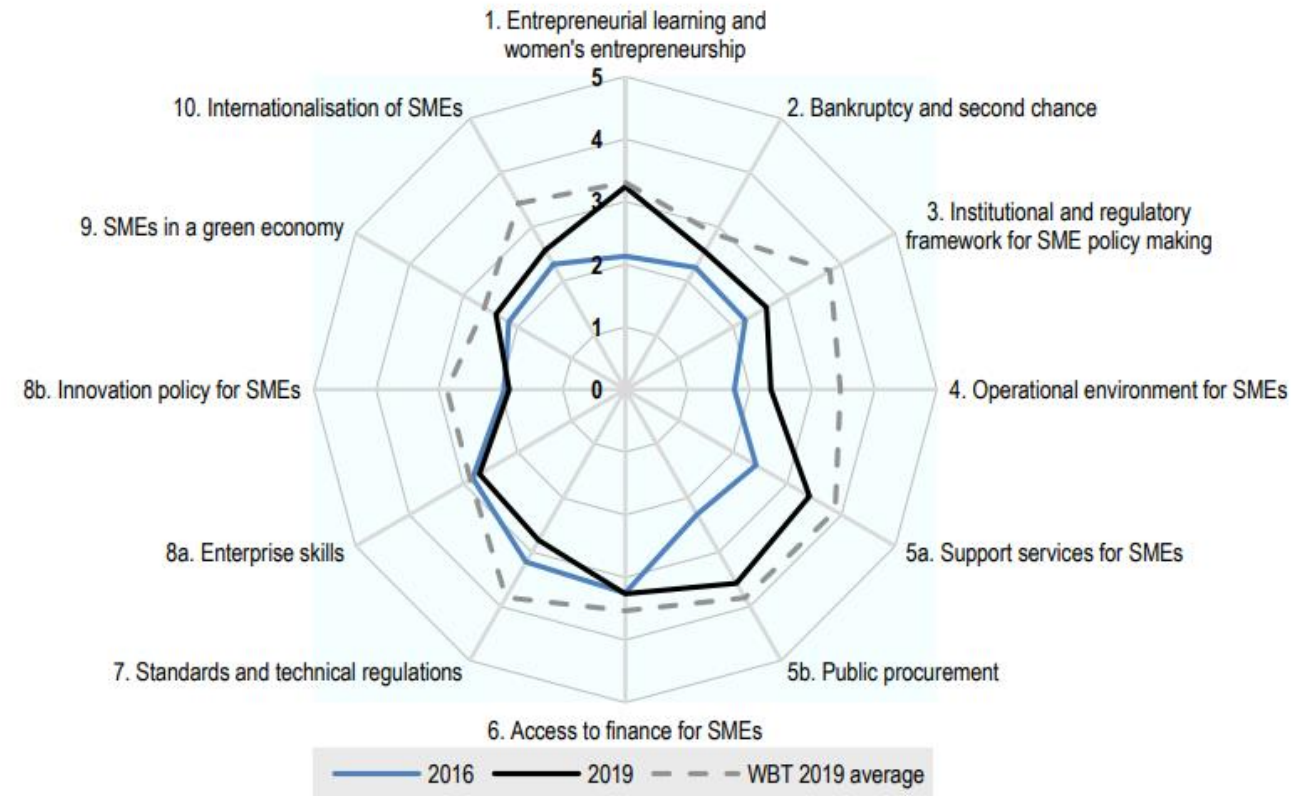
SPIN-OFF POLICIES IN BOSNIA AND HERZEGOVINA

POLICIES

- The Strategy for the Development of Science in Bosnia and Herzegovina 2017-2022 (Ministry of Civil Affairs)
- Strategy for development of small business FBiH, 2022-2027 (in consultations) – goals:
 - Competitive small economies based on innovation, digitalization and green circular economy,
 - Development of business environment and improvement of entrepreneurial infrastructure, and
 - Internationalization of small businesses in regional and global value chains.
- Strategy for development of small and medium enterprises in RS, 2021-2027 (adopted) + action plan – goals:
 - Renewal and growth of entrepreneurial activity in Republika Srpska, focusing on youth and women entrepreneurship,
 - Restoring and strengthening the competitiveness of SMEs in global value chains, and
 - Growth of the participation of products, services and sectors based on knowledge and innovation in the structure of SMEs.

SPIN-OFF POLICIES IN BOSNIA AND HERZEGOVINA MECHANISMS/INCENTIVES

- No mechanisms/incentives for spin-offs
- No venture capital (Croatian Fil Rouge made first VC investment in BiH startup this year)
- No business angels
- COSME programme
- Bits & pieces of innovation ecosystem (e.g., technology parks)
- International developmental aid



OECD et al. (2019), *SME Policy Index: Western Balkans and Turkey 2019: Assessing the Implementation of the Small Business Act for Europe*, SME Policy Index, OECD Publishing, Paris, <https://doi.org/10.1787/g2g9fa9a-en>

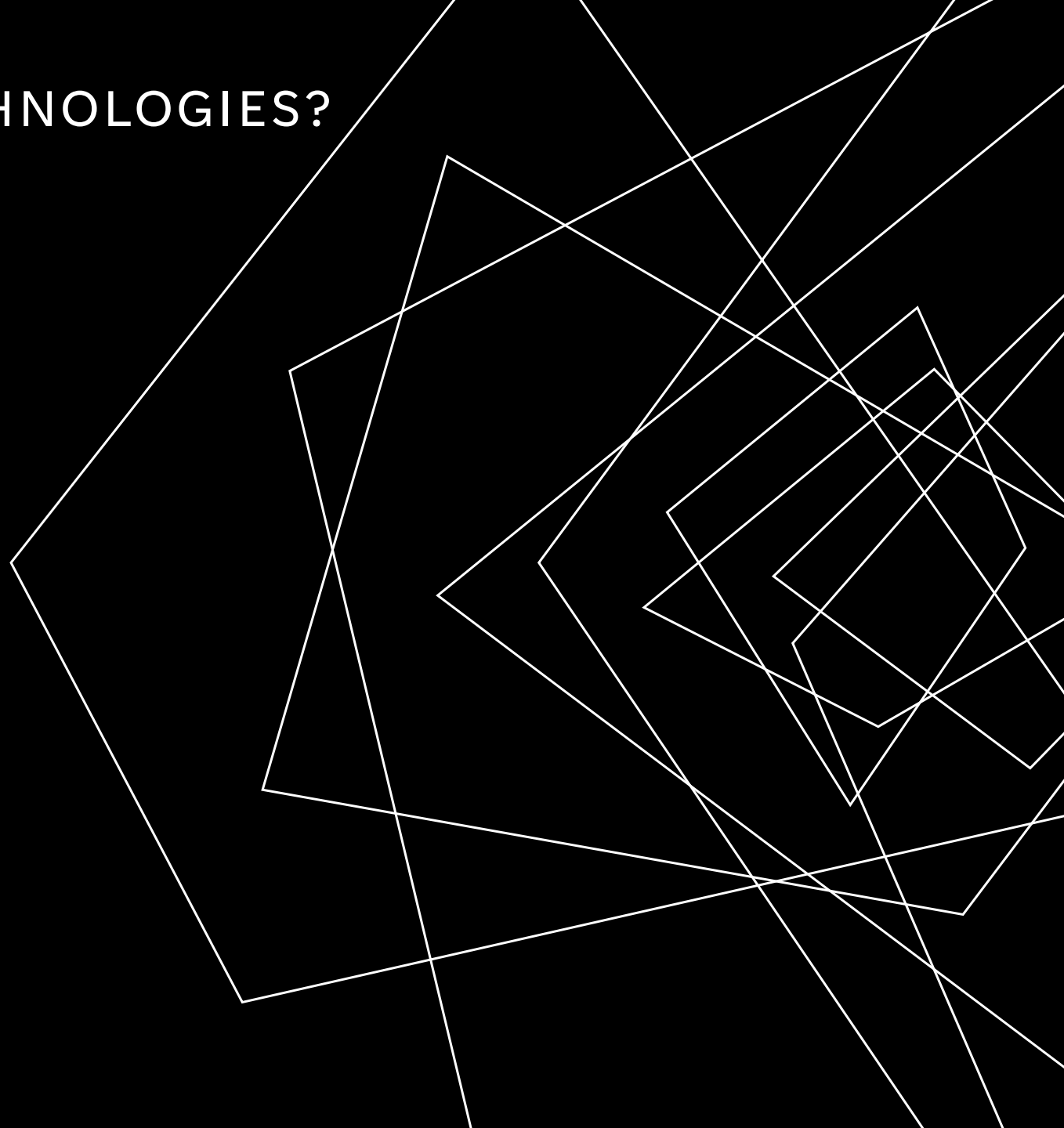
LOCAL NEED FOR NEW TECHNOLOGIES?

Low absorbant capacity of industry sector

Non-stimulative business environment

Lack of national awareness of biotechnology value/ no agro(bio)technological concept

Small country/market demand





SCIENCE TO INDUSTRY GAP AS A GLOBAL PHENOMENON

- Lack of educated professionals to implement the conversion of scientific fact into a marketable product
- Lack of knowledge/awareness on biobased industries potentials
- New approach in dealing with global biotechnology crisis (geopolitical framework should not be exclusive guide)

....

To identify the societal need in wider region, compensate for lack of researchers in the industry sector

To get a focus to the question – problem oriented “challenge”

To map/endorse the capacities with substantial interest

Make it a joint venture (“everyone” – should have a role)

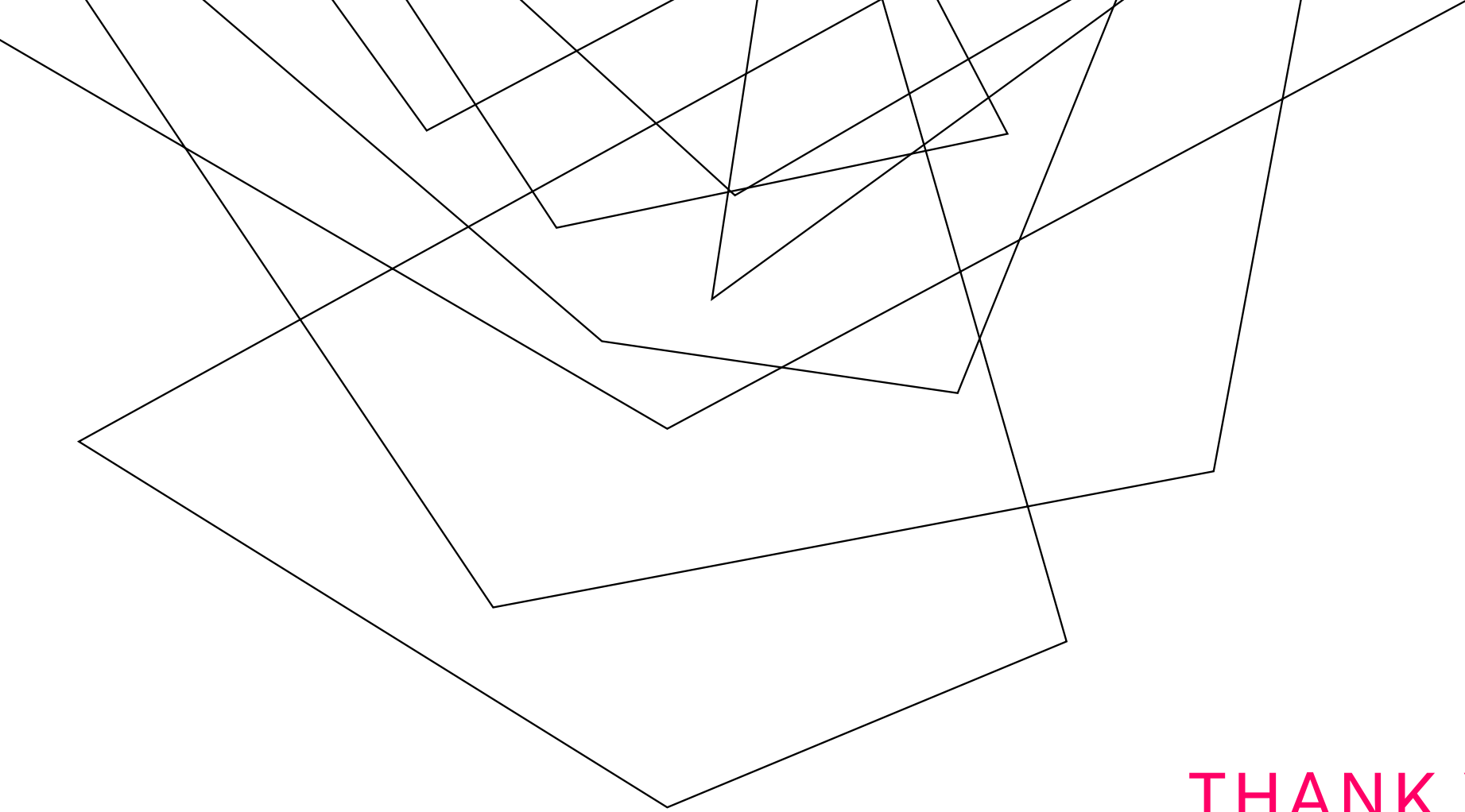
- Force the implementation of SDG 2030

Orchestrated to tackle

Education – sustainability

Excellence AND potential for excellence in academia and industry

Inclusiveness vs. not in my backyard culture



**THANK YOU FOR
YOUR ATTENTION!**