Digital Transformation of small and medium-sized enterprises in EaP countries (DT4SME)

Presentation at EDIH Network Annual Summit 2023, May 31 – June 1

Dr. Niclas Rueffer (Project Director) – niclas.Rueffer@giz.de

Ms. Salome Argvliani (Deputy Project Director) – salome.argvliani@giz.de

What is the Eastern Partnership region?

giz

GIZ Project DT4SME – Overview

- **Core project data:**

  - Duration: 03/2023 – 02/2026 (36 months)
  - Budget: 10,000,000 EUR
  - Locations: main project-office in Georgia; GIZ staff and activities in Armenia, Azerbaijan, Georgia, Moldova & Ukraine

- **Core issue to be adressed by the project:**

  - The digital transformation of local small and medium-sized enterprises (SMEs) is progressing (too) slow(ly) to fully exploit the potentials of the digital transformation for sustainable economic development.

giz

GIZ Project DT4SME – Logframe

Competitive SME

Overall objective – The competitiveness of small and medium-sized enterprises in Eastern Partnership countries is strengthened with regards to digital transformation.

Module indicator 1 – 15 out of 20 of the stakeholders interviewed, 8 of them women, confirmed on the basis of a concrete case study that the changed governmental or statistical framework conditions strengthen the competitiveness with regard to the digital transformation of SMEs.

MI 2 – 80 local SMEs have made practical use of competition-enhancing services or products from local, EU-oriented Digital Innovation Hubs for their business.

MI 3 – From 3 Eastern Partnership (EaP) countries, 5 SMEs each confirmed through a piloted case study that digital transformation has enabled greater integration into the European single market.

Output 1 – Policy and statistical framework conditions in the area of digital transformation of small and medium-sized enterprises are improved.

Output 2 – Cooperation between actors in the digital and entrepreneurial ecosystems has been expanded in the area of promoting the digital transformation of SMEs.

Output 3 – Small and medium-sized enterprises are strengthened in their capacities to implement digital solutions for business and production processes in their companies.

O101.1 – 5 Support measures to strengthen policy framework conditions in the area of digital transformation of small and medium-sized enterprises have been implemented.
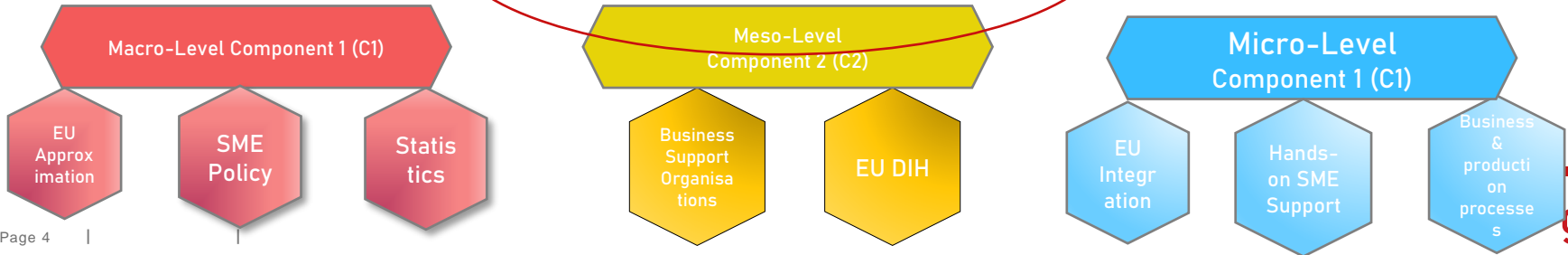
O202.1 – 6 cooperation projects in the area of promoting the digital transformation of small and medium-sized enterprises have been completed.

O303.1 –.100 SMEs, 50 of them with women in leadership positions, have taken advantage of support services for the use of digital solutions for business and production processes.

O101.2 – 8 Measures to strengthen business and innovation statistics are completed.

O202.2 – An EaP-wide network of local, EU-oriented Digital Innovation Hubs is etablished.

O303.2 – 20 SMEs have initiated the implementation of a transformation strategy or measure for the use of digital solutions for business and production processes.

Macro-Level Component 1 (C1)

EU Approximation

SME Policy

Statistics

Meso-Level Component 2 (C2)

Business Support Organisations

EU DIH

Micro-Level Component 1 (C1)

EU Integration

Hands-on SME Support

Business & production processes

giz

**Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH**

Registered offices
Bonn and Eschborn

Friedrich-Ebert-Allee 32 + 36   Dag-Hammarskjöld-Weg 1 - 5
53113 Bonn, Germany   65760 Eschborn, Germany
T +49 228 44 60 - 0   T +49 61 96 79 - 0
F +49 228 44 60 - 17 66   F +49 61 96 79 - 11 15

E info@giz.de
I   www.giz.de

giz
Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

ENTERPRISE GEORGIA

SME DIGITALISATION

ENTERPRISE GEORGIA

PRODUCE IN GEORGIA

Increasing **access to finance to SMEs** to enhance their competitiveness and productivity through special programs and initiatives such as:

- Credit subsidies and guarantees
  - Micro grants
  - Technical assistance
    - Film in Georgia
    - **Growth Hubs**

TRADE WITH GEORGIA

Promoting the export potential of the country and increasing **access to international markets** to SMEs by providing:

- Trainings for export managers
- Co-financing to participate in international exhibitions
- Support in branding and product licensing
  - Connecting local SMEs with international buyers

INVEST IN GEORGIA

Providing **support to investors** from project inception through investment aftercare and conducting image-building activities, such as:

- Participating in international roadshows
- Marketing campaigns and promotional materials
- Coordinating sectoral research
  - Ranking and ratings

GROWTH HUBS – CONSULTATION CENTERS

FUNCTIONS:

Consulting

Offer and co-finance consulting services tailored to the MSME's specific needs

Improving Business Skills

Trainings and workshops for entrepreneurs to help build human capacity

- On the basis of a diagnostic interview, the Hubs will offer and co-finance 90% of the consulting services

- On the basis of an online diagnostic test, the Hub will organize and co-finance trainings and workshops for the entrepreneur

DIRECTIONS:

| Sales & Marketing | Taxation | Legal Issues | Finance & Accounting | Business Modelling & Strategic Planning | Digitalization |

SME DIGITALISATION: DIGITAL SKILLS AND SOLUTIONS

I. Essential Features of the Service

Digital Transformation Experts (DTEs)

Specialists who advise and deliver **technology-led transformation** programs aiming to:
- enhance the firm's internal operations
- improve the end customers' digital experiences

Digitalization Plan

A **detailed plan** of how the specific SME can digitalize their **general business functions**, with a special consideration to **sector-specific characteristics**;

II. Process

Registration on the **Online Portal** → **Business-Diagnostics** at the Hub → Referral to the **DTE** → **Analysis/ Interviews** by the DTE → Tailored **Digitalization Plan**

III. Contents of the Digitalization Plan

I. Digital Skills

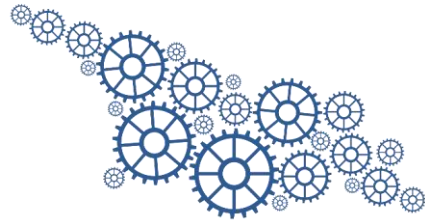Training the SME staff to increase their digital capacity
- The Hub will cover up to 90% of the cost of training
- **max 1 500 EUR per SME**

II. Digital Solutions

A grant to the SME to purchase a specific digital tool/solution
- The Hub will reimburse 90% of the cost of the solution
- **max 8 000 EUR per SME**

ENTERPRISE GEORGIA

THANK YOU

Virtual Center for Digital Innovation NOSC-UA DIH

Presentation at EDIH Network Annual Summit 2023, May 31 – June 1
Dr. Volodymyr Nochvai - v.nochvai@kau.edu.ua
Dr. Nataliia Harashchenko - n.harashchenko@kau.edu.ua

http://cloud-5.bitp.kiev.ua/?page_id=140

https://www.linkedin.com/showcase/nosc-ua-dih/

https://twitter.com/NOSC_UA_DIH

NOSC-UA DIH develops digital innovation services for scientists, business sector and public authorities on the basis of a cloud cluster of the Ukrainian National Grid

Partners

- 10 DIHs (4 EDIHs)
- 10 local SMEs
- 10 national partners
- 50+ International Partners

International Projects

EIT HEI: «Strengthening Innovative Pipelines for Impactful Universities»

Horizon Europe: «Strengthening Entrepreneurial Ecosystem Development»

Digital Europe: «Advanced Digital Skills on Blockchain for Trusted Food Supply Chains»

SERVICES

USECASES

CO-DESIGN AND PILOTING OF DIGITAL INNOVATIVE PROJECTS

SUPPORT ON FUNDING OPPORTUNITIES

INNOVATION ECOSYSTEM AND NETWORKING

SKILLS AND TRAINING

DIGITAL SERVICES

Cloud Technologies, AI, Data Sharing and Handling, Blockchain. Cybersecurity

STRUCTURESCOPE ETHER GRAVITY+AI

Supported by
eit Food | Funded by the European Union | EIT HEI Initiative

Non-destructive testing technology with artificial intelligence (AI)

helps fast and cheep detect defects in metal ware

fundraising - 45 000 euro

technological and business services

AGRIFOOTPRINT
+
CADS
CARBON AGRI DATA SPACE

Supported by
eit Food | Funded by the European Union | EIT HEI Initiative

cloud model for Carbon Footprint assessment in crop growing and agrifood value chains

fundraising - 120 000 euro
direct funding - 30 000 euro

ACTIVEHOUSE DIGITWIN

Supported by
eit Food | Funded by the European Union | EIT HEI Initiative

digital instrument for developers to monitor compliance of their projects with the European standards of comfortable and sustainable buildings

winner of International Active House Awards 2019 (Designed buildings with radar) Toronto, Canada.

DIH-WORLD

As intermediaries of successful local SME digital transformation, DIH-World aims at providing DIHs, access to harmonized tools, well proven technologies, effective methodologies, sound knowledge, smart investment sources, rich training assets and overall a vibrant innovation environment.

i4Trust

i4Trust is a collaborative initiative boosting the innovative services around new data value chains networking community. i4Trust provides the right tools, coaching, mentoring and initial funding to break down barriers to data sharing and support the creation of Data Spaces.

EOSC DIH
DIGITAL INNOVATION HUB

EOSC DIH is an international and multi-partner cooperation that supports companies in easily accessing the digital technologies and services offered by the EOSC.
It combines 4 main pillars to help companies become more competitive: Pilot design and co-design, Technical access, Training & support and Visibility.

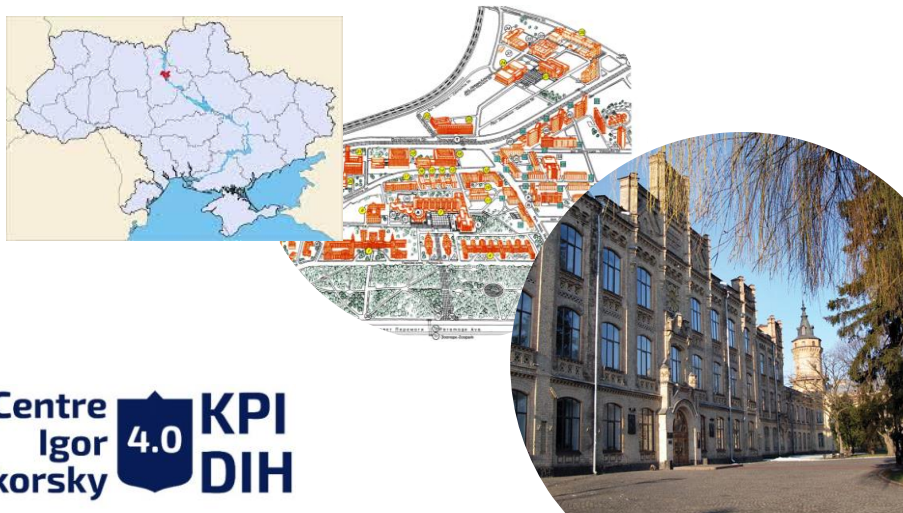Thank you for your attention! Let's keep in touch!

v.nochvai@kau.edu.ua

KPI DIH – Centre 4.0

Presentation at EDIH Network Annual Summit 2023, May 31 – June 1

Dr. Oksana Yurchyshyn - oksanayurchishin@gmail.com
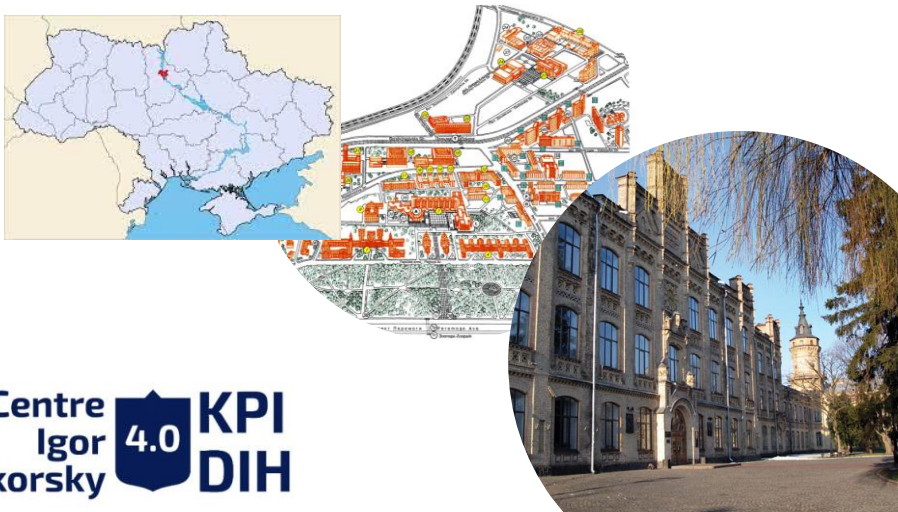**Dr. Anna Kukharuk - annakukharuk@gmail.com**

KPI DIH – Centre 4.0

Location: Kyiv, the capital city of Ukraine

Date of est.: 2021 as a DIH,
but for years worked as a department of Igor Sikorsky KPI.

Staff: 5 people employed and over 10 situational personnel

DIH mostly supports actors in manufacturing and industrial applications

DIH is a part of the University

24 educational departments

13 science departments

200+ scientific groups

38 educational and scientific laboratories

Partners

National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" - R&D, testbeds, networking

Association of Industrial Automation of Ukraine (AIAU) - Engagement of SME, community management, product marketing, communication

Innovation Holding Sikorsky Challenge - Commercialization of innovation projects, Acceleration projects

AIAU: EAM cluster (Engineering - Automation - Machinery) - Networking, potential customers

BOWI Project Architecture

PIAP (Poland)-
Mature DIH

Financing of expertise

Technology transfer

Implementation

Centre 4.0 KPI DIH
(**Here we are**)

The needs of companies

3rd open call BOWI 35 Ukrainian applications

Winners

D-Reader – AI drawing recognition
Sakura-APM - Optimization of processes at the grain elevator
Koeebox-MES - Planning and monitoring of production assets of the enterprise
Boiler Digital Twin - Digital twin of heat energy equipment

Small and medium businesses

Centre Igor Sikorsky 4.0 KPI DIH

Key fields of Centre 4.0 KPI DIH expertise

Cyber-physical and embedded systems	Internet of Things
Digital twins, data sharing, autonomous factories	Additive manufacturing technologies
Modelling and simulation	Artificial Intelligence

Centre Igor Sikorsky 4.0 KPI DIH
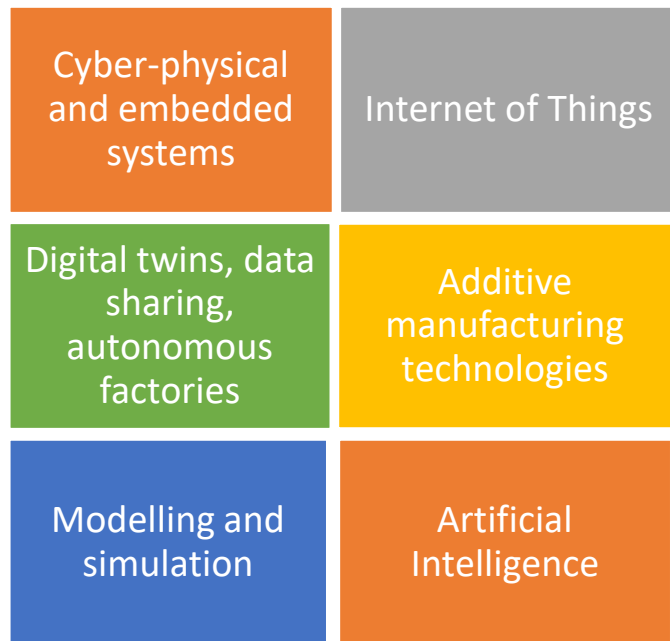
Subjects for a cross-border partnership

Testing and feasibility assessment
Evaluation of hypotheses and technologies.

Road map
Assistance in the development of RM for DIHs and their projects

Bisiness Plan
Assistance in the development of BP for the emerging DIHs

Network Corridor
Involvement of foreign SME's in the Ukrainian market

Joint Workshops
Organizing Workshops on Technologies by participants of DIHs and SMEs

How can the Center 4.0 KPI DIH be useful:

| Services		
Ecosystem	Community formation	**The Association of Industrial Automation of Ukraine (AIAU)**
	Development of strategies	
	Representation, promotion	
Technology	Strategic R&D	**Igor Sikorsky Kyiv Polytechnic Institute**
	Custom R&D	
	Technical support in development	
	Technical infrastructure	
Business	Testing and verification	**Sikorsky Challenge**
	Incubators/accelerators	
Education	Access to financing	**IAM Cluster**
	Development of projects	
	Placement	**Igor Sikorsky Kyiv Polytechnic Institute**
	Development of skills	

Centre Igor Sikorsky 4.0 KPI DIH

KPI DIH – Centre 4.0

Thank you very much for your attention! Let's keep in touch!

Dr. Oksana Yurchyshyn - oksanayurchishin@gmail.com
Dr. Anna Kukharuk - annakukharuk@gmail.com
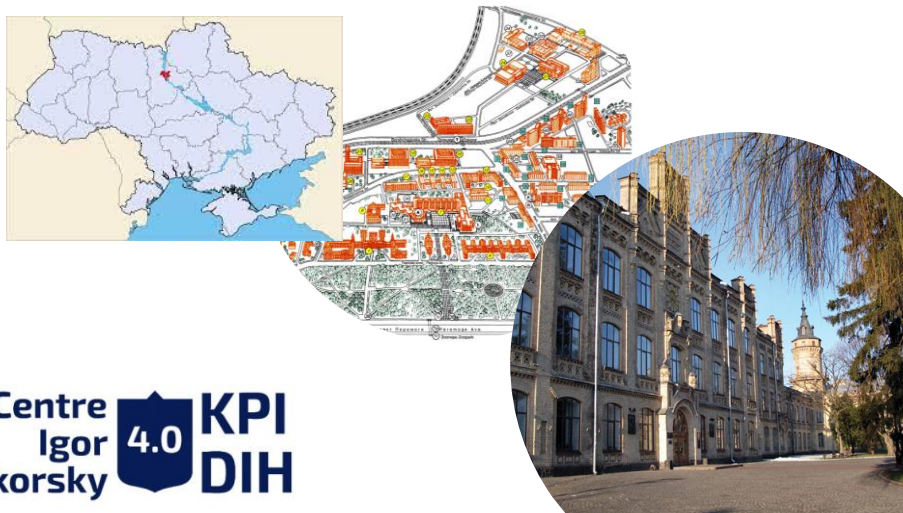
DIH I4MS Ukraine : Hub-laboratory Internet of Things

Presentation at EDIH Network Annual Summit 2023, May 31 – June 1

Mr. Ivan Kulchytskyy - Kul.ivan@gmail.com

DIH I4MS Ukraine : Hub-laboratory Internet of Things

Agency for European Innovations (managing partner, element of international networks)
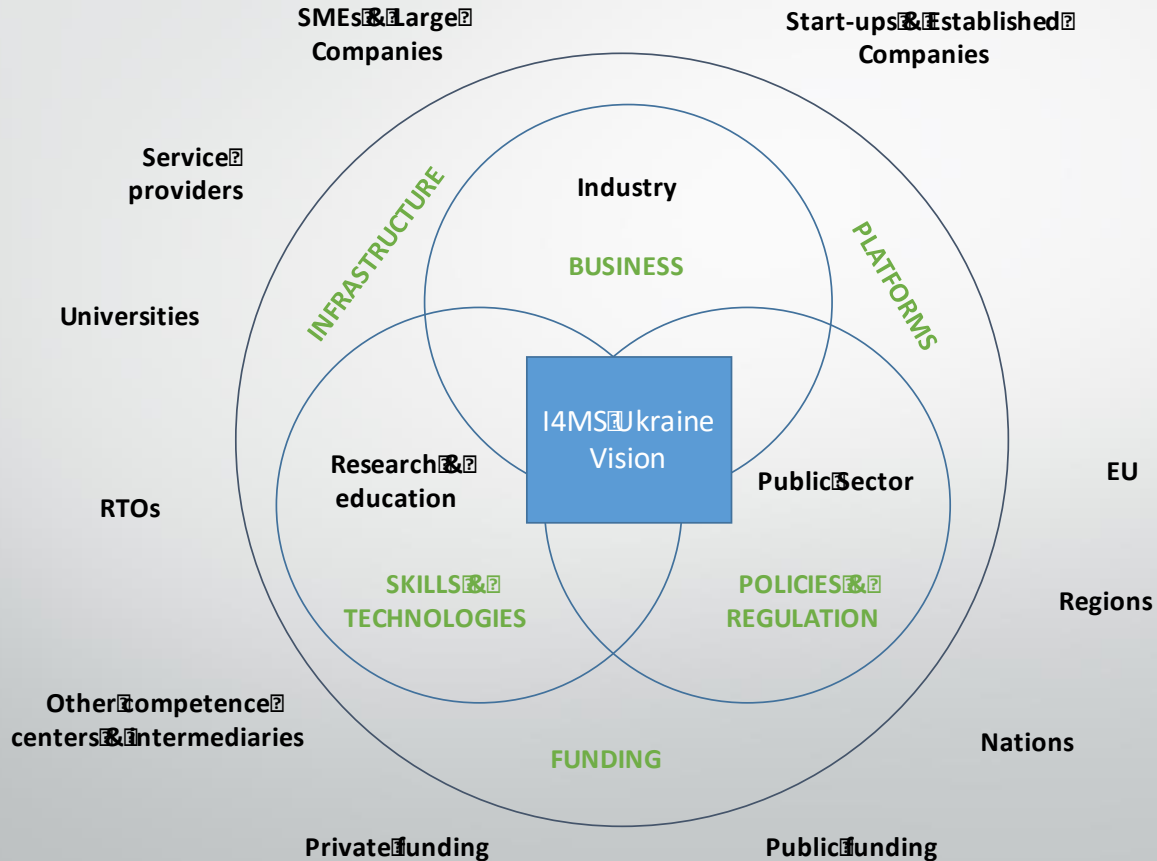
Lviv Polytechnic National University (competence centre)

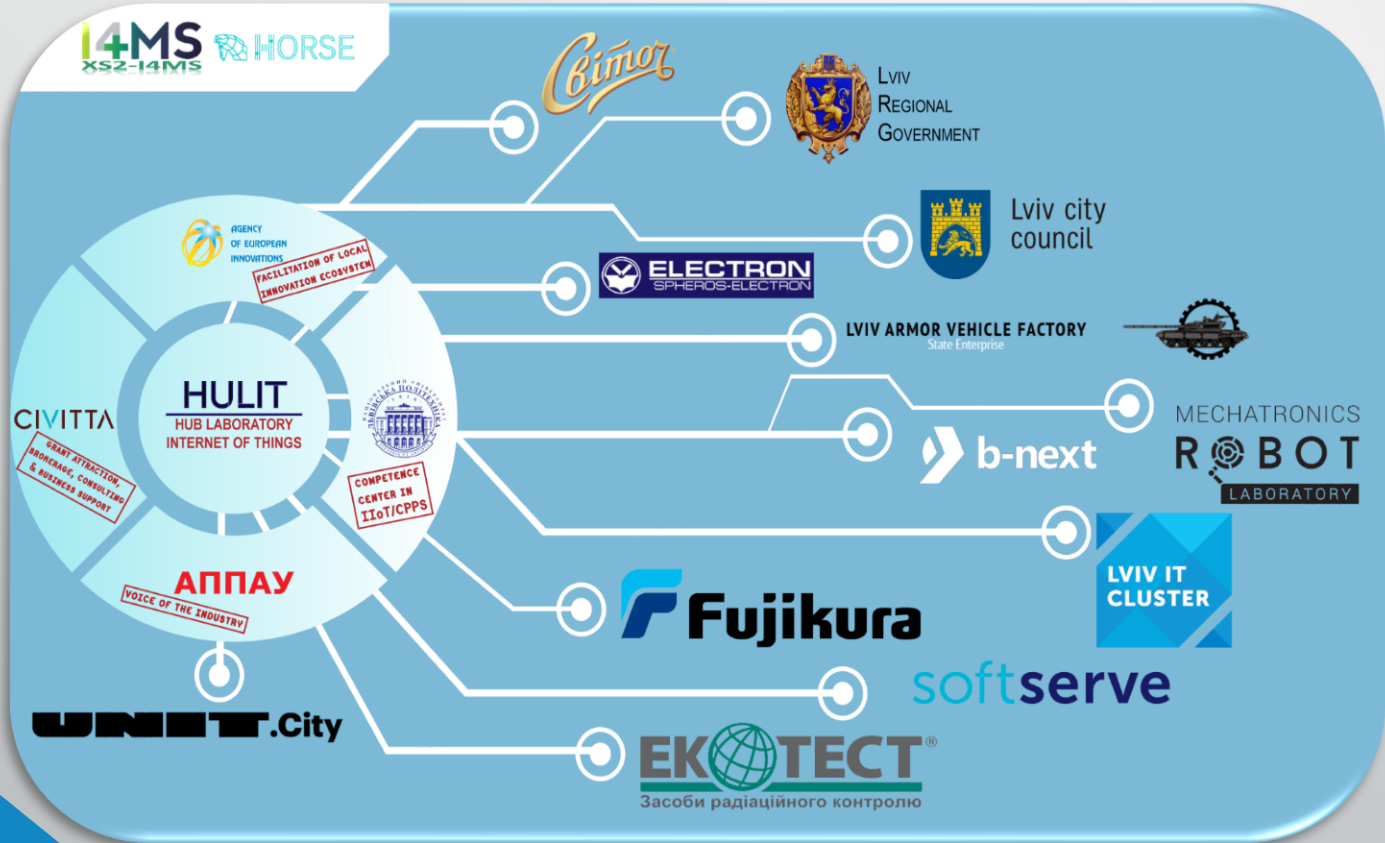**Civitta Ukraine** (business expertise)

Association of Industrial Automation in Ukraine (access to market)

The basic partnership has been expanded in order to ensure closer contacts between DIH and manufacturing sector, and we are planning to reach a broader geography of Hub's influence in Ukraine.

Vision

SMEs & Large Companies

Start-ups & Established Companies

Service providers

Universities

RTOs

Other competence centers & intermediaries

Private funding

Public funding

INFRASTRUCTURE

PLATFORMS

Industry

BUSINESS

I4MS Ukraine Vision

Research & education

Public Sector

EU

Regions

Nations

SKILLS & TECHNOLOGIES

POLICIES & REGULATION

FUNDING

Regional Partnership

DIH I4MS Ukraine ACTIVITIES:

- Promotion IoT and digital manufacturing as competitive advantage for SME's manufacturers and mid-caps.
- Develop and support of innovation network in the Lviv region.
- Promotion and assistance of science and industry integration, information-methodological support of investment-innovation and scientific-technical development of Lviv region.
- Facilitation of cooperation between research institutions and independent inventors
- Information-consultative maintenance of international and cross-border cooperation of Ukrainian scientists in scientific-research area.
- Protection, assessment and commercialization of legal objects of intellectual property, inventions and new technologies promoting on a market, cooperation with European network of technology transfer centres.
- Information-organizational support of creation and performance of small innovation entrepreneurships till the stage of investments attraction and formation of regional innovation-industry and art-cultural clusters.
- Media-exhibition assistance of the scientific-innovation prior trends in the region.
- Providing with formative-educational services in order to form the innovation culture.
- Formation of databases of business and scientific-technical information.
- Analysis conduction of the problems of interaction between R&D institutes with business and authorities

Future plans

DIH as part of Innovation infrastructure of Lviv Polytechnic National University:

- **Tech Startup School –** Support for startups (wide range of services)
- **Asolution Hub** - a platform for cooperation between business and inventors.
- **Tech Labinno** - modern laboratory for rapid prototyping with a wide list of required equipment.

Creation of new services for digital transformation of the Ukraine and Lviv region. For this we need additional investment or grant resources

Development of international cooperation (Horizon Europa, EIC, EIT, cross-border programs and others)

Contacts

Ivan Kulchytskyy

Kul.ivan@gmail.com

Presentation at EDIH Network Annual Summit 2023, May 31 – June 1

Mr. Ion BODRUG bodrug.ion@aceti.md
Mr. Mircea Petic petic.mircea@aceti.md

Digital Innovation Hub of Moldova

Association for the Development of Electronic Communications and Innovative Technologies

- ACETI launched in 2019
- Now 16 companies in ACETI

  - Programming
  - Electronic communication
  - Computer assembly/sale/repair
  - Selling licensed software
  - IT consulting and development
  - Graphic design development
  - IT education/retraining
  - Smart solutions (houses, cities).

- 2021 - Study on the state of the labor force in the field of IT and engineering in the northern region of the Republic of Moldova

- 2021 - Launching in collaboration with "Alecu Russo" Balti State University of the Information Technology specialty.

- 21 november 2021 –
  Digital Transformation Conference
  Start of Digital Innovation Hub of Moldova

Strengthening the innovation technology ecosystem in the northern region of the RM

USAID FROM THE AMERICAN PEOPLE   Suedia Sverige

Future Technologies Activity
Innovate Moldova

Digital Innovation Hub of Moldova

Association for the Development of Electronic Communications and Innovative Technologies

ACETI
Asociația pentru Dezvoltarea Comunicațiilor Electronice și Tehnologiilor Inovaționale

- Launched on December, 21, 2021
- Now 33 members

  - IT Companies
  - Education Institutions
  - R&D Institute
  - Municipalities
  - Regional Chambers of Commerce and Industry
  - Industrial parks
  - Business incubators
  - Business associations.

- 2 international partners

- 13 companies were surveyed with reference to the digital maturity assessment.

- Recommendations were proposed for the digitization and retechnologization of processes within 5 companies.

- 6 companies were assisted in submitting to obtain funding to ensure digital transformation.

- 2 companies obtained financing for the implementation of digital transformation solutions.

- 2 company has already implemented digital transformation solutions.

Strengthening the innovation technology ecosystem in the northern region of the RM

USAID FROM THE AMERICAN PEOPLE

Suedia Sverige

Future Technologies Activity

 Innovate Moldova

Digital Innovation Hub of Moldova

Association for the Development of Electronic Communications and Innovative Technologies

Areas of expertise:

- **Digitization and retechnologization of SMEs**
- **AgroTech**
- **HealthTech**
- **EnergyTech**

International cooperation

Future plan:
- To become European Digital Innovation Hubs (EDIH)

Strengthening the innovation technology ecosystem in the northern region of the RM

Digital Innovation Hub of Moldova

dh OF MOLDOVA
Digital Innovation Hub of Moldova

ACETI
Asociația pentru Dezvoltarea Comunicațiilor Electronice și Tehnologiilor Inovaționale

Association for the Development of Electronic Communications and Innovative Technologies

CODRU NORD & FLORIBEL

CUPTORUL FERMECAT

- The beneficiary is a producer of decorative plants (25 employees)

- Solution is an <u>agricultural drone</u> that automates the surveillance of agricultural land (80 hectares), for the purpose of early detection of outbreaks of specific plant diseases.

- The beneficiary is a manufacturer of confectionery, bakery and pastry (130 employees).

- Solution is an <u>automated enterprise management system</u>.

- In order to achieve the assumed objectives, the Beneficiary will contact local manufacturers of software solutions.

Strengthening the innovation technology ecosystem in the northern region of the RM

Future Technologies Activity
Innovate Moldova

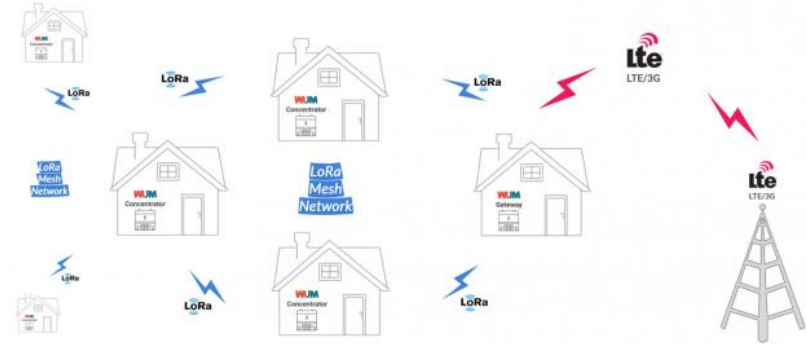# Digital Innovation Hub of Moldova

ACETI
Asociația pentru Dezvoltarea Comunicațiilor Electronice și Tehnologiilor Inovaționale

Association for the Development of Electronic Communications and Innovative Technologies

- The beneficiary represents an enterprise in the distribution of electricity (1300 employees).

- In 2021 ACETI facilitated the audit of the company's IT infrastructure.

- The solution is the possibility of remote reading of electric smart meters, including consumption data and power quality parameters.

- In 2023, the Year of Digital Transformation was launched at the company.

Strengthening the innovation technology ecosystem in the northern region of the RM

USAID FROM THE AMERICAN PEOPLE

Suedia Sverige

Future Technologies Activity
Innovate Moldova

"By perseverance the snail reached the ark."

Charles Spurgeon