ktu 1922 school of economics and business

Inspire and lead to the changes!

HealthTech Solutions

Device for preventing the transmission of respiratory viruses by airborne droplets

Solution: PROTOTYPE

A tool has been developed to stop the spread of COVID-19 and safely provide contact services (e.g., dentistry, cosmetology, etc.) during the global pandemic.

Using technological means such as HINES–rays, laboratory tests have shown that at a dose of 22 mJ/cm2 for 25 seconds, 99.9999% of the SARS-CoV-2 virus is destroyed. They are effective in reducing risks to human health and activity. Therefore, the use of the aforementioned radiation for respiratory tract disinfection would be an effective way to destroy the COVID-19 virus and prevent its spread by aerosol during the provision of the planned services.

The product is designed to eliminate COVID-19 and other viruses across three barriers: during exhalation, by capturing solid particles, and in the separator.

In view of the spread of airborne viruses (influenza, COVID-19, tuberculosis, etc.) during pandemics or epidemics, the developed devices should be implemented in healthcare and cosmetology service facilities as a condition for ensuring the safe provision of services.

Funding

Inovacijų agentūra

Researchers

V. Gaidelys, R. Čiutienė, S. Miliauskas, D. Adlienė

ktu 1922 school of economics and business

Inspire and lead to the changes!

FinTech Solutions

Commercial risk management platform – Risk planner

Solution: PLATFORM

PROBLEM. Risk management at the transaction, partner, or portfolio level is a critical factor for every company, especially when operating in constantly changing markets. Well-understood and well-managed risk opens up greater financing opportunities, promotes business development, and increases business security.

SOLUTION. RiskPlanner is the answer to this problem and is designed for comprehensive management of risks and financing challenges.

It is a qualitative tool for managing, evaluating, and auditing commercial transactions, developed on the No. #1 CRM platform – SalesForce.

PLATFORM FUNCTIONALITY:

- Automatic determination of the buyer's credit limit;
- Real-time management of customer portfolio credit risk;
- Real-time goods tracking; In-transit goods financing.

BUSINESS BENEFITS:

- Access to additional capital;
- Higher independent insurance limits;
- Reduction in limit inquiries and renewal costs;
- New buyers due to simpler insurance provision;
- Portfolio management.

RISK PLANNER

Funding

LVPA LIETUVOS VERSLO PARAMOS AGENTŪRA

Researcher

G. Žigienė, R. Vaitkienė, M. Petraitė, E. Rybakovas

ktu
1922
school of economics and business

Inspire and lead to the changes!

Digi Solutions

Algorithm for real-time assessment and forecasting of economic activity – NOWCASTING

Solution: PLATFORM

The interactive platform (nowcasting.lt) enables the assessment and forecasting of the country's economic activity and its indicators with minimal delay. Depending on the nature, availability, and functionality of the data, the platform is structured into:

1) economic activity modules (e-inflation, road transport intensity, labor market, real estate market, electricity market, media trends, car market, air pollution, securities market);

2) economic activity forecast modules (economic indicator forecast module and economic activity index (EAI) module).

AN INTERACTIVE PLATFORM CAN BE USEFUL:

- For companies in the private sector and financial services institutions, timely information reflecting economic activity, enabling them to make informed decisions to manage changes in their operations.
- The country's authorities, for whom it is expedient to have an information and research-based foundation for formulating adequate economic policy targeted at specific groups of economic entities.
- Households seeking to maintain financial resilience in the event of an economic shock (e.g., the COVID-19 pandemic) by responsibly planning their consumption, savings, and financial commitments.
- An early economic risk warning system that provides scientifically and methodologically sound decisions on changes in economic conditions and indicators in the event of an economic shock (e.g., the COVID-19 pandemic).

Funding

Lietuvos mokslo taryba

European Commission

Researchers

V.Pilinkienė, J. Bruneckienė, A. Grybauskas, M.Lukauskas, I. Pekarskienė, A. Stundžienė

ktu
1922
school of economics and business

Inspire and lead to the changes!

EdTech Solutions

A socio-economic model for managing the consequences of the COVID-19 pandemic in the education process.

Solution: PLATFORM

Scientific research has shown that when governments implement COVID-19 pandemic management measures and organize long-term remote learning in general education schools, negative side effects emerge. These include deterioration of children's psychological well-being (aggressive behaviour, depressive moods, hopelessness due to insufficient academic performance, etc.), a lack of social skills, learning gaps in specific subjects, as well as declining physical condition and the development of certain illnesses due to low levels of physical activity.

Therefore, in order to balance students' activities and compensate for the negative side effects of remote learning, a model has been developed to address the emerging challenges and substantiate them in economic terms. In this context, the developed model will support long-term budgeting for general education schools and ensure that funds are directed effectively to the developed programmes.

The economic model and measures for managing the consequences of the COVID-19 pandemic will help to manage the negative consequences affecting the implementation of the education process. The results are expected to be commercialized.

The developed model can help prevent the negative consequences of remote learning on students' knowledge, socialisation, and physical and mental health. The model can also be beneficial in shaping the education budget.

Funding

Lietuvos mokslo taryba

Researchers

V. Gaidelys, R. Čiutienė, G. Cibulskas, S. Miliauskas, J. Jukštaitė

ktu 1922 school of economics and business

Inspire and lead to the changes!

Digi Solutions

A digital and circular economy service exchange platform for new scientific research and experimental development

Solution: PLATFORM

Increasing the efficiency and accessibility of research and experimental development services for interested parties in Lithuania and abroad. Transferring research services to the virtual space and thus increasing the provision of services remotely. The created data exchange platform will make it possible to implement this. Planned services:

- Scientific research according to TRL (Technology Readiness Level) categories 2–4, and in some cases up to TRL 9 (for example, when a model is being developed);
- In order to implement the principles of the circular economy, printed research results were abandoned
- The developed information system will facilitate the efficient remote execution of scientific research with international partners, enhancing competitiveness and market expansion.
- The availability of additional service delivery options will enhance both the efficiency and quality of service provision.

By taking advantage of its rapid expansion of internet connectivity, Lithuania has the opportunity to establish itself as a center for business and scientific collaboration in carrying out research and experimental development activities.

Funding

Inovacijų agentūra

Researcher

V. Gaidelys

circulσσp

CIRCULAR DESIGN TOOLS FOR PRODUCT INTEGRITY

PROBLEM ADRESSED SHIFT FROM LINEAR TO CIRCULAR

Most companies are currently rooted in a linear growth – “make, use, dispose” approach

Researchers, entrepreneurs - generators of potential products, lack design capabilities for CE

Need for supportive system and user friendly tools enabling to design products in line with the CE model

TRAINING PROGRAM

Training modules

PIT
Product Idea Template

Circular indicators in 10 categories

DIGITAL DATASET

- Methods
- DigitalDesign Lib.
- Useful Links
- Circular design Network
- Infrastructure, enabling technologies or CE
- Policies & funding

CIRCULAR DESIGN JOURNEY

Mentors & facilitators

GOAL

circulσσp is a platform helping to design circular products & services. It provides a variety of resources and a circular design journey to increase circularity.This platform is intended to be used as a pre-accelerator for circular design.

CHALLENGES

1. Mental shift
2. Knowledge exchange between stakeholders
3. Gap between soft & hard(tech)- skills

Need for a customised & user friendly path for product development

TARGET AUDIENCE

SME’s’ & entrepreneurs - product developers

APPLICATION

Can be used by:
• companies & entrepreneurs for product development
• research organizations & innovation hubs for pre-acceleration

Project coordinator ktu 1922

Collaborators: CRITICAL + why, POLITECNICO DI MILANO, DesignLibrary Kaunas

This research has received funding from European Regional Development Fund (project No. 01.2.2-LMT-K-718-03-0104) under grant agreement with the Research Council of Lithuania (LMTLT)

ktu 1922 school of economics and business

Inspire and lead to the changes!

HealthTech Solutions

TelecareBMI, a platform for value-based and personalized telehealth services

Solution: PLATFORM

Tools for developing an innovative business model for value-based and personalized telehealth services (THS) and the supporting open-source digital healthcare platform (TeleCare BMI), which has been tested in a simulated real-world environment. TeleCare BMI enables THS providers to easily and interactively model a multilateral value proposition for THS, anticipate required resources, plan THS development and delivery processes, and assess socio-economic returns.

The telehealth services platform is a systemic innovation, developed by doctors, patients, technology developers – platform owners, medical device manufacturers, nurses, insurers, and other interconnected parties involved.

Providing telehealth services requires not only technological and healthcare competencies, but also other cross-sectoral skills and a functioning healthcare ecosystem.

Telehealth services must be not only effective but also economically sustainable, so all parties involved need to be able to assess and ensure the socio-economic return of telehealth services.

Telehealth services support disease prevention, early diagnosis, and personalized treatment, as well as the efficient utilization of resources across patients, healthcare professionals, medical institutions, and the broader healthcare system.

Funding

Lietuvos mokslo taryba

Researchers

A.Pundzienė, D. Teece, R. Sermontytė-Baniulė, L.Geryba, J. Giniūnienė, J. Macijauskienė, L. Valius, G.Šakalytė, G. Aladaitienė, V. Neverauskė

ktu 1922 school of economics and business

Inspire and lead to the changes!

Digi Solutions

Machine learning-enabled digitalization benchmarking and roadmaps

Solution: WEB-PLATFORM

Benchmark you digitalization readiness against other manufacturing companies. Get individualized, machine learning-enabled digitalization roadmap.

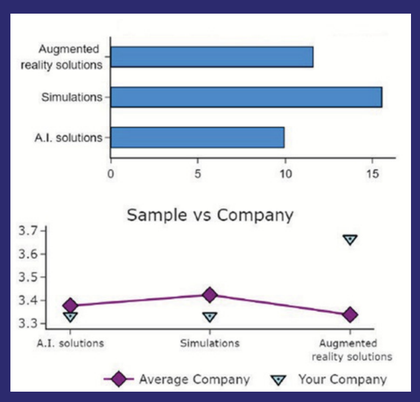
Fast and anonymous: Benchmark your digitalization performance and get improvement insights in 30 minutes.

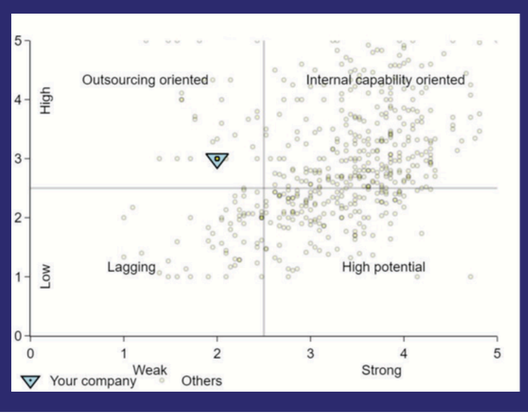
Field situation, not experts' opinions. Digitalization performance is benchmarked against a sample of similar companies.

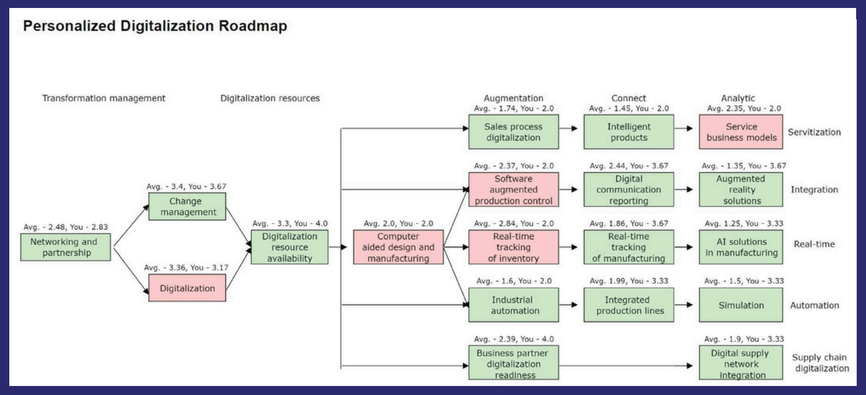
Understand your weaknesses and strengths. Informs which digitalization capabilities and innovations are underperforming.

Supported by machine learning. ML-enabled recommendations for developing lacking digital innovations.

Increasingly precise. Continuously increasing database provides tailored and individualized predictions.







Funding

Research Council of Lithuania

European Commission

Researchers

M. Vilkas, M. Ghobakhloo, A. Grybauskas, G. Marcinkevičius, M. Petraitė, P. A. Sarvari, A. Stefanini

ktu 1922 school of economics and business

Inspire and lead to the changes!

Digi Solutions

Policy implications: Advancing digital transformation of Lithuanian Industry

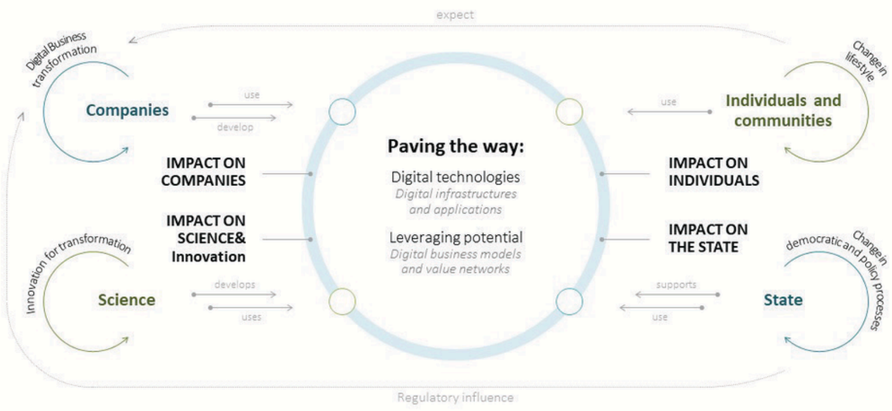
Solution: POLICY IMPLICATIONS

Digital transformation of Lithuanian Industry highly depends on smart policy design and precise interventions. Research based policy design suggests 6 distinct eareas of action:

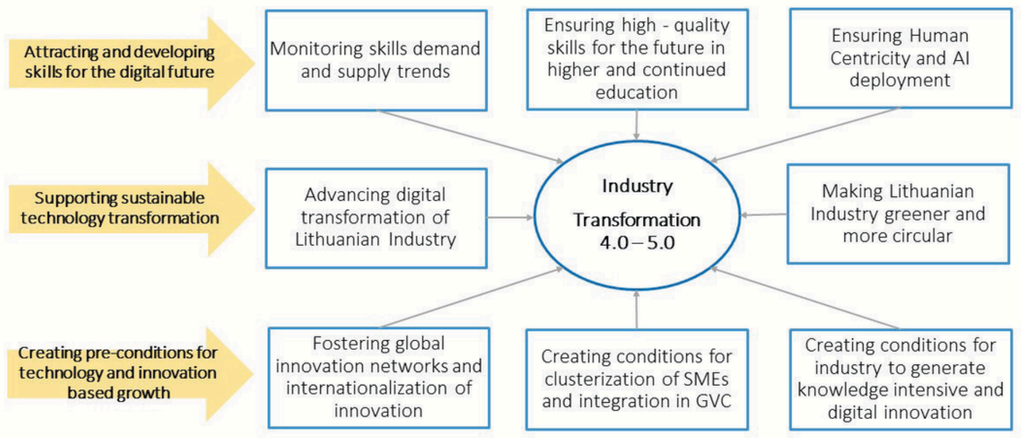
- Digital factory development and technology upgrading
- Development of manufacturing firm capabilities for digitalisation strategy
- Support the sophistication of digitalisation processes
- Focus on higher value-added processes and export
- Linking digitalisation and greening policies at the firm and industry level
- Development of completely autonomous factories for full digital transformation

DIGITAL TRANSFORMATION: FOCUS AREAS

Stakeholders' scope of action



DIGITAL TRANSFORMATION: POLICY IMPLICATIONS



Funding

European Commission

Researchers

P. Damaskopoulos, M. Gobakhloo, A. Grybauskas, M.E. Morales, M. Petraitė, S. Nousala, P. A. Sarvari, A. Stefanini, B. Tan, M. Vilkas