TSI TRANSPORTA UN SAKARU INSTITŪTS

iDEA HUB

ArgentoLab

IDEA PROPOSAL: ***Reagent intersection and storage module for Multiplex IHC Autostainer***

NATIONAL DEVELOPMENT PLAN 2020

EUROPEAN UNION
European Regional Development Fund

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Company profile

Industry:

- IT, Innovation’s development

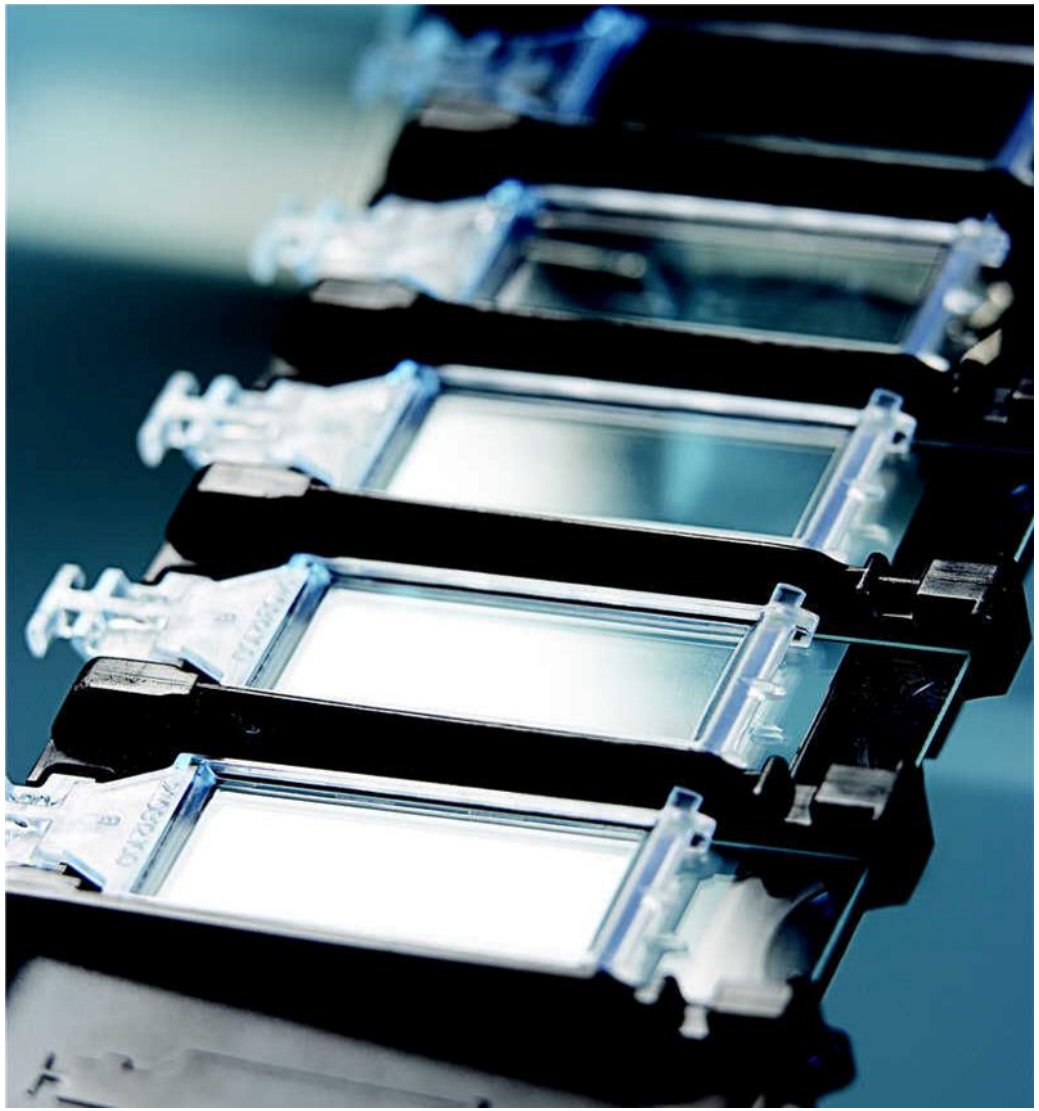
Directions for innovation solutions

- Biomedicine technologies
- Complex digitalization
- Blockchain solutions

BACKGROUND

- The idea of innovation is an automated system, which provides the compete labeling cycle of proteins of interest (method: immunohistochemistry) and nucleic acids DNA or RNA (method: in situ hybridization) in biological tissue material, allowing following microscopic analysis. Traditionally the labeling (often called ‘staining’) is performed by laboratory specialists and may take several days to complete.

- Very few automated labeling systems (‘auto-stainers’) present on market either utilize outdated technologies or are designed for very specific workflows, which makes them inflexible, very expensive and often unreliable. We are going to combine most efficient modern technologies into completely innovative architecture of the auto-stainer, providing significant improvement of the quality of processes, flexibility, and user experience.



PROBLEM:

- Existing systems do not have a special cooling module that can store reagent tubes with a specific system. Also, liquid pumps must ensure the processing of reagents from the cooling module to the modules where the staining process ensured.

CHALLENGE:

- Develop an efficient cooling solution with an autostainer reagent module, and ensure that the liquid is processed into other modules for staining