Transilvania IT Cluster

Bianca Muntean - Cluster manager
Transilvania IT Cluster
by Aries T
Who are we?

Over 115 members (90% SMEs) from 6 counties: Cluj, Salaj, Satu-Mare, Maramures, Bistrita and Bihor, having over 5,600 employees in the companies and a turnover >285 mil euro.
Members competences

- Communication and media
- Entertainment
- Financial services
- Construction
- Logistics
- Education
- eGovernance
- Manufacturing
- eHealth
- Utilities
- eTourism
- Sales and distribution
- Automotive & aviation
- Consultancy
- Banking & Finance
- Pharmaceutical
- Communication & Media
- Home and Office automation
- Insurance & Reinsurance
- Energy
Main Action Points

- Innovation
- Collaboration
- Create synergies
- Digitalisation
- Support Smart Applications, Ideas & Projects
- Creative Industries
- Agriculture
- Robotics
- Cultural Heritage
- Circular Economy
2019 Working Groups
- Transilvania IT Cluster -

HR & Education
Digital / Smart City
Wellbeing / eHealth
Robotics
ECOsystem, not EGOsystem
The 5th Annual Edition of Transylvanian Clusters International Conference

CREIC@ Cluj Innovation Park  September 18-20, 2019

www.tcic2019.b2match.io
www.transylvanianclusters.ro
The Digitalization Offer
Digitalization in Cluj

- **Regional IT** is an industry that defines itself as being innovative. Its offer covers in particular the business and e-business segment, being somewhat lower for niche segments.

- The industry has a greater addressability to the mature segment, aware of the **benefits of digitization**. These advantages are primarily aimed at simplifying and optimizing processes and facilitating decision-making.
Digitalization in Cluj

• The main obstacles to the implementation of the digitization process are lack of expertise, high costs or incompatibility with the field of activity.

• The market signals major obstacles in the sale of digitization products, customer reluctance to benefit, lack of readiness, but also limited dedicated budgets. The solutions proposed to overcome these obstacles are aimed at educating clients and developing a complex strategy of attracting resources to implement digitization.
Challenges in Digitalization

- Low levels of expertise in digital transformation: 51%
- High costs: 34%
- It has a low potential in some domains: 29%
- Companies don't have digital clients in on-line: 11%
- Security risks: 9%
- It's a complicated process: 6%
- Little advantage: 1%
- Other: 21%
Transilvania Digital Innovation Hub

- Transilvania Digital Innovation Hub is an initiative developed by Transilvania IT Cluster in collaboration with relevant stakeholders in the region:
  - Municipality of Cluj-Napoca;
  - Babes-Bolyai University;
  - Technical University of Cluj-Napoca;
  - Regional Development Agency North – West;
  - National Institute for Research and Development of Isotopic and Molecular Technologies INCDTIM;
  - AgroTransilvania Cluster;
  - Transilvanian Furniture Cluster;
  - Transilvania Taste Cluster;
  - Transylvania Lifestyle Cluster;
  - Transylvania Energy Cluster (TREC);
  - Transylvania Creative Industries Cluster;

Building entrepreneurship & sparking innovation
A Pan-European Network of Robotics DIHs for Agile Production
<table>
<thead>
<tr>
<th>Agility Challenges (#Gap)</th>
<th>DIH² Network (#Pillars)</th>
<th>Project Results</th>
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</thead>
</table>
| #Technology gap                   | Technology Transfer Program                      | **DIH’ Network for Robotic on Agile Production**  
26 DIHs representing 26 EU countries  
More than 300,000 Manuf. SMEs reached  
13,000 Manuf. SMEs directly reached  
260 Agility Audits deployed  
26 Technology Transfers Experiments [TTEs] |
| #Investment gap                   |                                                  |                                                                                                                                                  |
| #Standardisation gap              | Standardisation & Platforms                      | **Industrial Alliance for Robots Standardisation on AP Common Open Platform Reference Architecture for AP (COPRA-AP)**  
26 Robotics-based Open Standard Enablers for Agile Production (ROSE-AP)  
52 agreements with corporates for Industry adoption |
| #Skills & competencies gap        | Skills on Agile Production                       | **MOOC Platform on Robotics for Agile Manufacturing**  
Skill Observatory  
26 training plans implemented |
| # Ethics and security gap         | Regulatory framework                             | **Central Services for ELS, Data Protection and Cyber-security issues**  
ELS, Data Protection & Cyber-security Vouchers  
26 to 52 Reports on those issues |
4 Pillars of DIH² Network

- Technology Transfer Program
- Standardisation & Platforms
- Regulatory Framework
- Skills on Agile Production

Network on Robotics for Agile Production

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DIH² Technology Transfer Program

Open Calls (10 months)
- Preparation + Stage 1 OC
- Evaluation
- Stage 2 OC
- Evaluation
- Jury

Tech Transfer program (10 months)
- TTE
- ROSE-AP

Go-to Market
- VCS Corporates

2 batches (20 months per batch)

Open Calls
- Applications: 260
- (10 per country)
- Top Ranking: 52
- Finalist: 26

Jury Day
- Mini-grant: 1k€
- Audit Voucher: 10k€

TTE
- 1st quarter
- ELS, DP & CS Voucher: 6k€
- 200k€
- 2nd quarter
- 3rd quarter
- Up to 0.5M€

Networking events

Mentors: Research-in-Residence (RIR), Entrepreneur-in-Residence (EIR), Standardisation Mentors (SM) and Fundraising Mentors (FM)

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DIH² Digitalization Platform

[Diagram showing various components and services related to digitalization, such as Smart Factory Management Services, Processing Engines, FIWARE Context Broker, IoT platform, Systems Adaptation layer, and other machines and robotic systems.]
DIH² Training and Skill Development

DIH’s Training Framework for Agile Production Adoption

<table>
<thead>
<tr>
<th>Up-skilling</th>
<th>STRATEGIC GROWTH (Awareness)</th>
<th>AGILE PRODUCTION (Advanced)</th>
<th>Re-skilling</th>
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<tbody>
<tr>
<td>AGILE CULTURE</td>
<td>Productisation of Innovation (Tech transfer/uptake)</td>
<td>Quick robot programming techniques</td>
<td>Governance, Process &amp; Organization</td>
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<tr>
<td>Skills, leadership and mindset</td>
<td>Manufacturing as a Service (Servitisation, business models)</td>
<td>Human-Robot Collaboration</td>
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<td>Data Driven Excellence</td>
<td>Safety</td>
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<td>Security by design</td>
<td>Mechatronics</td>
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<td>Standards solutions (OPAP)</td>
<td>Production Planning</td>
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</table>

MOOC Platform

DIH² Nodes Catalogue (Section 4.4.-1.(g))

Building entrepreneurship & sparking innovation
Life is sharing
Be best, not in, but for the world
Supporting Digital Transformation & Innovation!

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