Technology and Innovation Park of the Pavol Jozef Safarik University in Košice



Technology driven, human oriented

MOTIVATION

The reaction of P. J. Šafárik University to the current and predicted development of the society - we are looking for a solution for significant qualitative change / development of the UPJŠ

Research and technologies

4PR is characterized by a fusion of technologies, convergence of physical, digital and biological space (**Bio - Nano - Info**) - **Recombinant technologies**

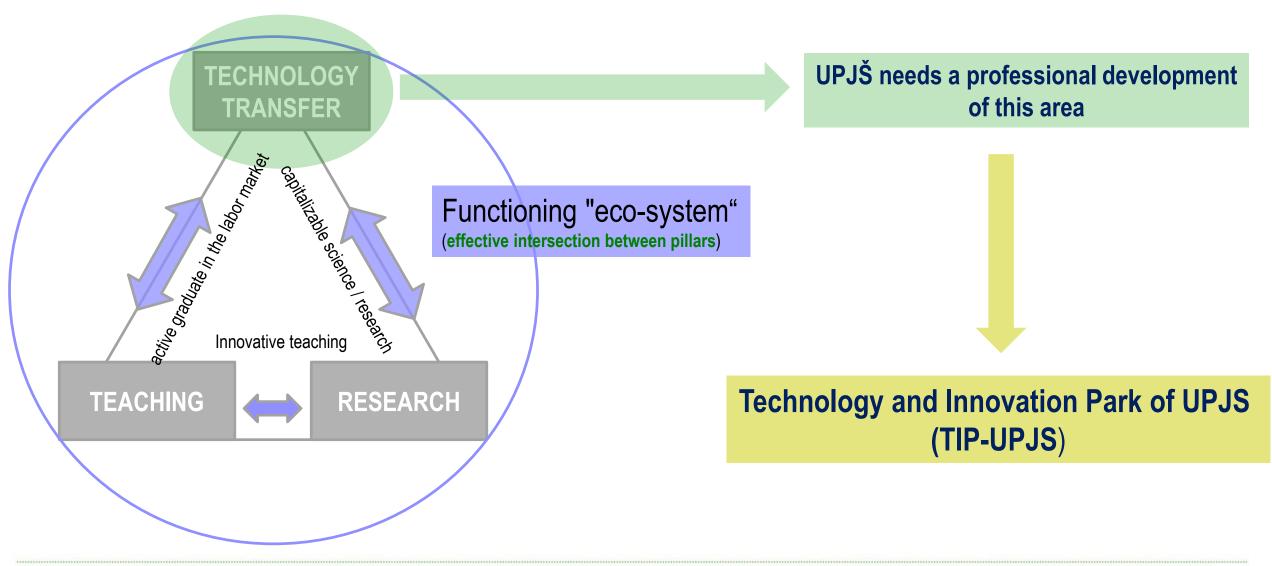
Breakthrough recombinant technologies are expected mainly in the following areas: artificial intelligence, robotics, autonomous vehicles, 3-D printing, nanotechnology, biotechnology / biomedicine

Vitaly Colomb, HP Tech Ventures Bratislava Startup awards Interdisciplinarity = fusion / stronger interconnection between medical and natural sciences



MOTIVATION

Modern University stands on the synergy of three pillars: "moving-up triangle"



TIP-UPJŠ goals

Main goal:

CREATING THE MODERN RESEARCH AND APPLICATION CENTER AT THE INTERNATIONAL LEVEL

TIP-UPJŠ is the center of excellence in science and technology at UPJŠ in the field of **biomedicine**, **biotechnology**, **information technologies and advanced materials**.

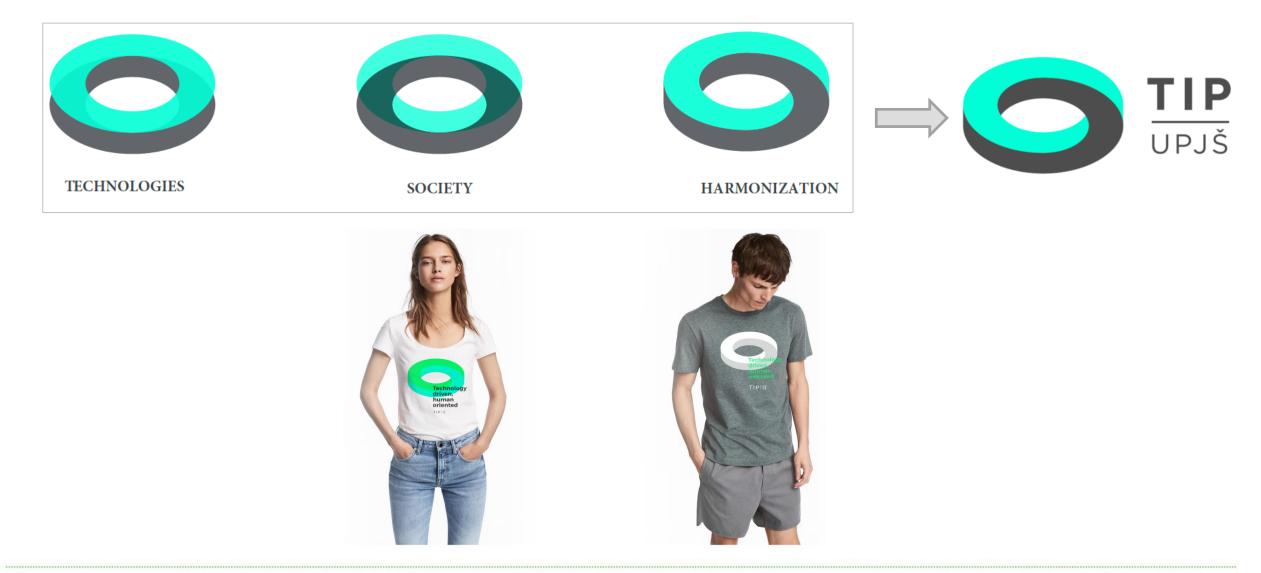
The main mission of TIP-UPJŠ is to build a recognized European Research and Application Center with an "efficient and friendly" business background for high-tech business/companies

Milestones:

- 1. Short-term goal: human potential
 - ✓ Reintegration Slovak experts from abroad
 - ✓ Foreign experts within international projects (post-doc, ERA chair)
- 2. Medium-term objective: competitiveness in high-tech technology transfer on international level (science and technology)
- 3. Long-term goal: to make a significant contribution to the creation of high-tech industries in the region and Slovakia

MOTIVATION - Logo

TECHNOLOGY DRIVEN – HUMAN ORIENTED



Technology and Innovation Park of the Pavol Jozef Šafárik University (TIP-UPJŠ)							
Based on projects implementation	CELIM	MEDIPARK	TECHNICOM		PROMATECH		
Creation of Technology and Innovation Centers as a result of EU projects implementation	Center for Interdisciplinary Biosciences (CIB)	Center Translation Medicine (CTM)	Center for Informatics and Information Technologies (CIIT)		Center for Progressive Materials (CPM)		
Research and technology focus - starting structure (splited into projects) – new technologies	 ✓ Nano-medicine ✓ Aging ✓ Environment 	 ✓ Regenerative medicine ✓ Personalized medicine ✓ Biobanking 	 ✓ Information and knowledge systems ✓ Cyber security ✓ Communication systems ✓ Artificial intelligence 		 ✓ Biocompatible materials ✓ Nanotechnologies 		
Space for social sciences	✓ technologies vs society - sociology, psychology, law, etics – "responsible system of society governance/regulation",						
FREE zone:	Research/technology projects based on personalities (mainly reintegrates from abroad) – possibility of 2-3 years stays in TIP-UPJŠ the best/most perspective ones will be accepted (offer to create their own research group)						
Experimental infrastructure (core facilities)	 core facilities (Central imaging facility – from atomic upo to in vivo medical imaging) Computation cloud Other basic experimental facilities instaled in diferent TIP labs 						
Technology transfer	start-up incubator	Start-up accelerator ✓ DEG bioresearch s.r. ✓ SAFTRA 3D maping		 spin-off ✓ SAFTRA photonics s.r.o. – SME H2020 project, start-up award ✓ MultiplexDX Ltd – start-up award ✓ RV. Magretics s.r.o. 			
Administration:	Projects management, legal and financial deparments, marketing, IPR, PR						

Localization of the TIP-UPJŠ

Recent situation: three different places

CETM – LF UPJŠ, Tr. SNP1

CIIT & CIB – PF UPJŠ, Jesenná 5

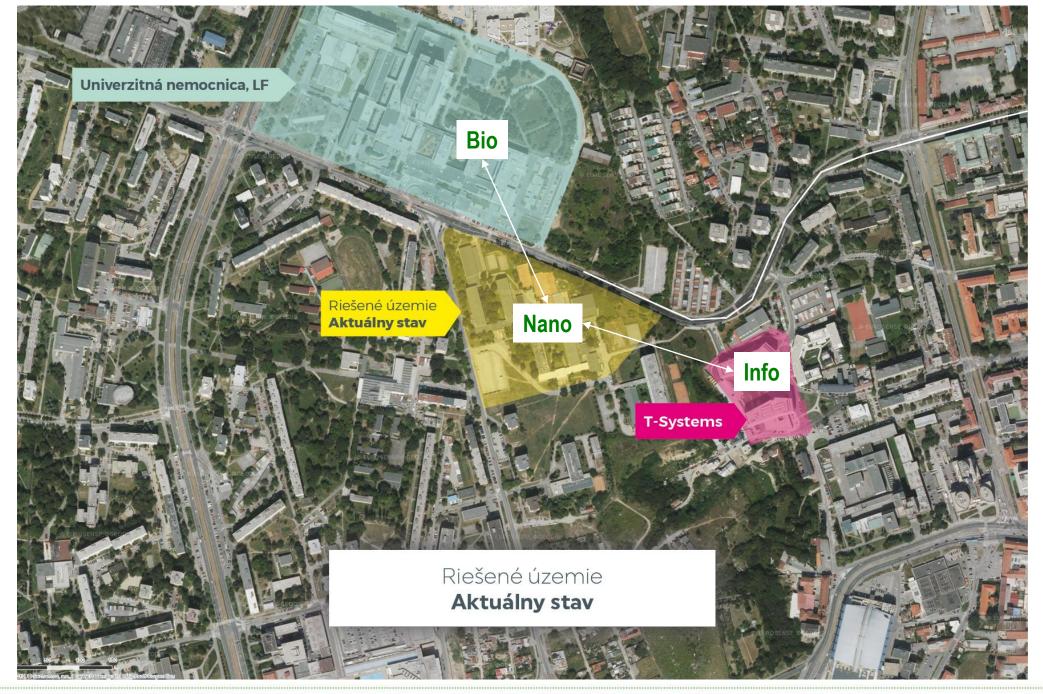


CPM – PF UPJŠ, Park Angelinum

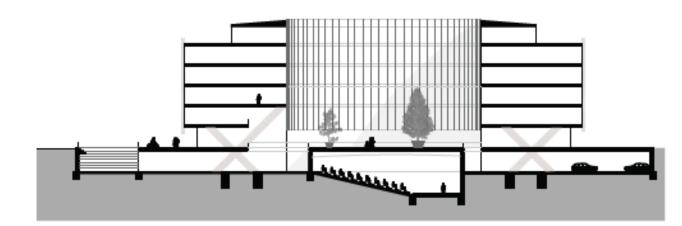


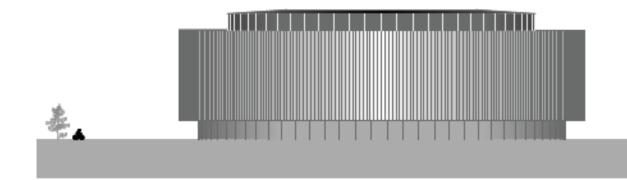
Goal: new building and campus

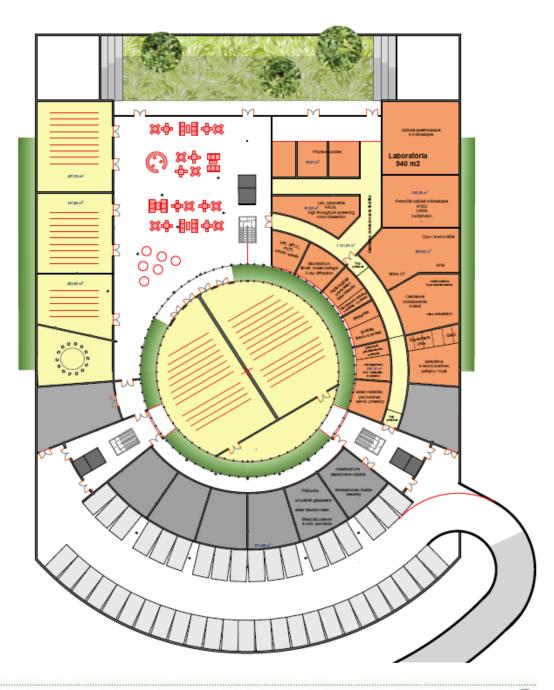




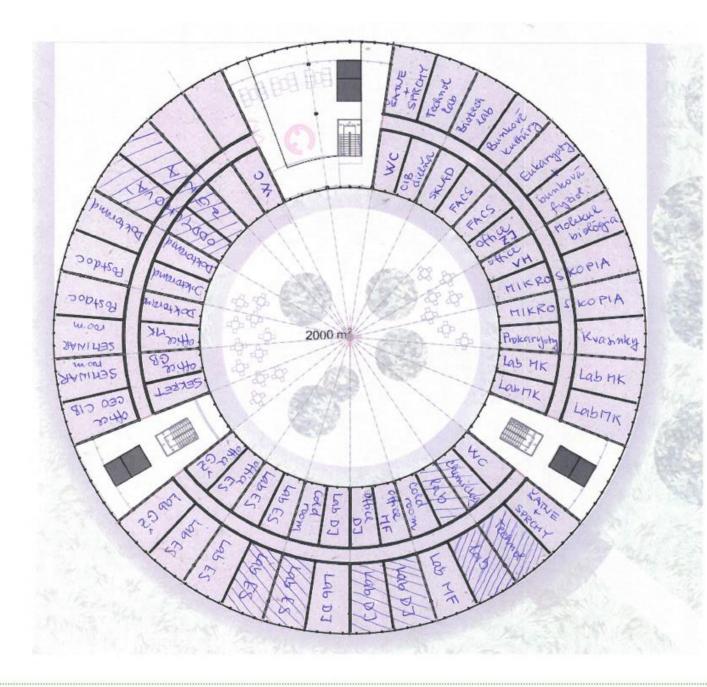












✓ <u>Centrum interdisciplinárnych biovied (CIB):</u>

Názov laboratórií	Počet x Plocha	Rozloha spolu	Poznámka
Chemické laboratórium	2x 30 m ²	60 m ²	
Laboratórium molekulovej biológie	1x 30 m ²	30 m ²	
Laboratórium bunkových kultúr	2x 30 m ²	60 m ²	
Laboratórium prokaryotov a kvasiniek	2x 20 m ²	40 m ²	
Laboratórium eukaryotov a bunkovej fyziológie	2x 30 m ²	60 m ²	
Laboratórium prietokovej cytometrie	2x 20 m ²	40 m ²	
Laboratórium fluorescenčnej mikroskopie	7x 20 m ²	140 m ²	
Laboratórium laserovej spektroskopie (kvôli obmedzeniu otrasov, lokalizované na prízemí)	3x 30 m ²	90 m²	Prízemie resp. suterén
Laboratórium Ramanovej spektroskopie (FT-IR, FT-Raman, klasický Raman, CARS)	2x 20 m ² 1x 30 m ²	70 m ²	Prízemie resp. suterén
Laboratórium bioenergetiky	1x 30 m ²	30 m ²	
Laboratórium optickej spektroskopie a biotermodynamiky	1x 20 m ² 1x 30 m ² 1x 50 m ²	100 m ²	
Laboratórium proteínového inžinierstva	1x 15 m ² 1x 20 m ² 3x 30 m ² 1x 50 m ²	115 m ²	
Laboratórium hmotnostnej spektrometrie	2x 30 m ²	60 m ²	
Biotechnologické laboratórium	1x 30 m ²	30 m ²	
Chladná miestnosť (4-8°C)	2x 20 m ²	40 m ²	
RTG zobrazovanie	1x 30 m ²	30 m ²	
Experimentálna embryológia	1x 30 m ²	30 m ²	
Preparatívna miestnosť (prízemie)	1x 30 m ²	30 m ²	
Technologické miestnosti (1x príprava vody, 1x autokláv, 1x mrazničky, 1x odpad, 1x sklad)	5x 20 m ²	100 m ²	
CIB dielňa	1x 15 m ²	15 m ²	
Ostatné plochy (chodba,)		200 m ²	
SPOLU		1370 m ²	

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