



Central European Institute of Technology  
BRNO | CZECH REPUBLIC

# The CEITEC Case: Translating Infrastructure into Capacity Development

Research and Innovation Funding: The Stairway to Excellence

**Markus Dettenhofer**

Executive Director

Prague, Czech Republic, 3 March 2016



EUROPEAN UNION  
EUROPEAN REGIONAL DEVELOPMENT FUND  
INVESTING IN YOUR FUTURE



OP Research and  
Development for Innovation



# Aim

“ *CEITEC is a scientific consortium in the **fields of life sciences, advanced materials and technologies** whose aim is to establish itself as a recognized European center of science.* ”



# Financing (June 2011- December 2015)

- Structural funds – European Regional Development Fund
- OP Research and Development for Innovations (Ministry of Education)

CEITEC Planned budget	EUR / USD (mil)
Buildings (including parcels)	61 / 81
Equipment (core facilities and other laboratories)	105 / 138
Start-up grant	42 / 56
<b>Total</b>	<b>208 / 275</b>



EUROPEAN UNION  
EUROPEAN REGIONAL DEVELOPMENT FUND  
INVESTING IN YOUR FUTURE



**OP Research and  
Development for Innovation**



**CEITEC MU Building**

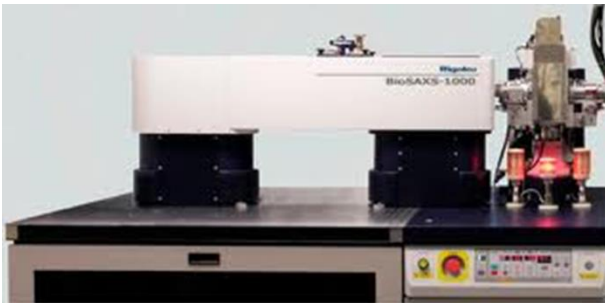


# Core Facilities – Open Access



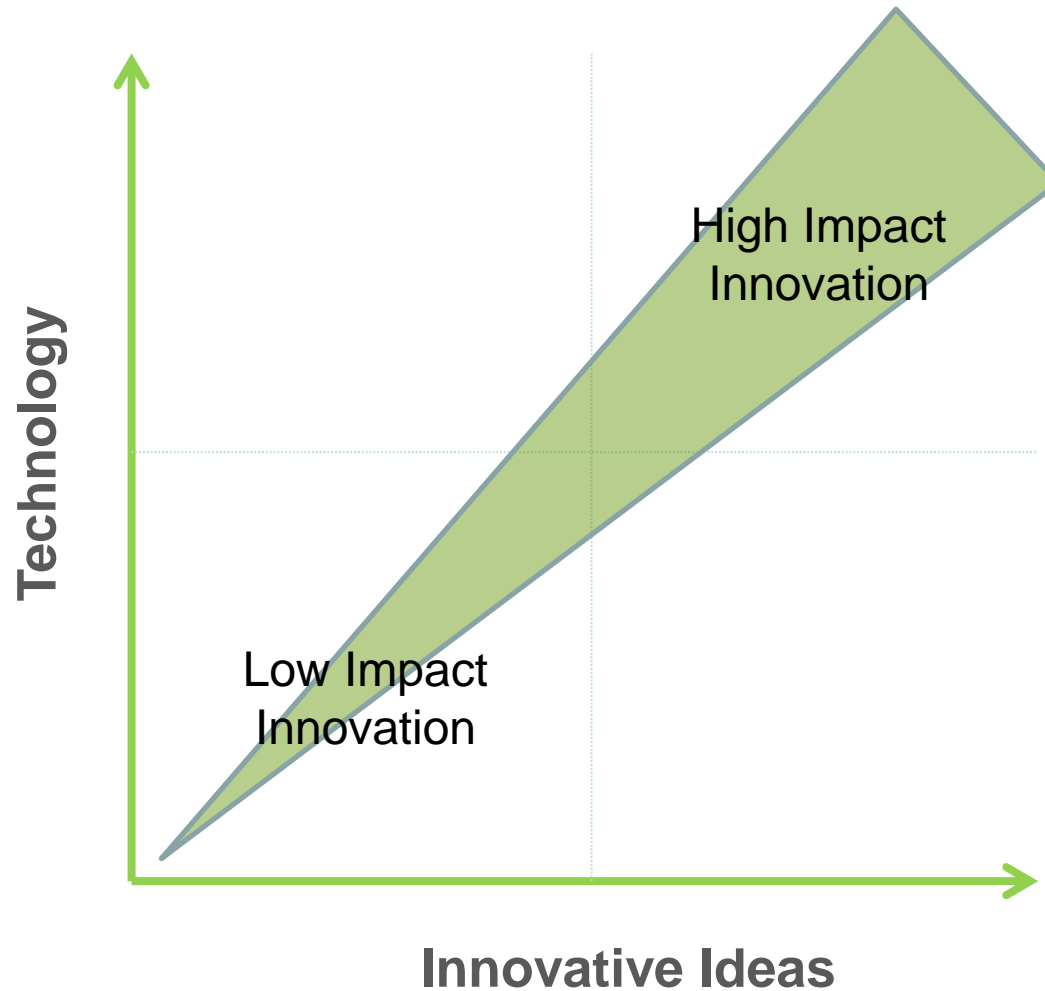
**NMR - 950 MHz** (liquid), 850 MHz (liquid), 2 x 700 MHz (liquid and solid), 600 MHz (liquid), 500 MHz (liquid and solid)

**Cryo-Electron Microscopy** – High-throughput **FEI Titan Krios 300kV**, FEI Tecna 200kV



**Single Crystal X-ray Diffraction** – Rigaku BioSAXS robotized diffraction system

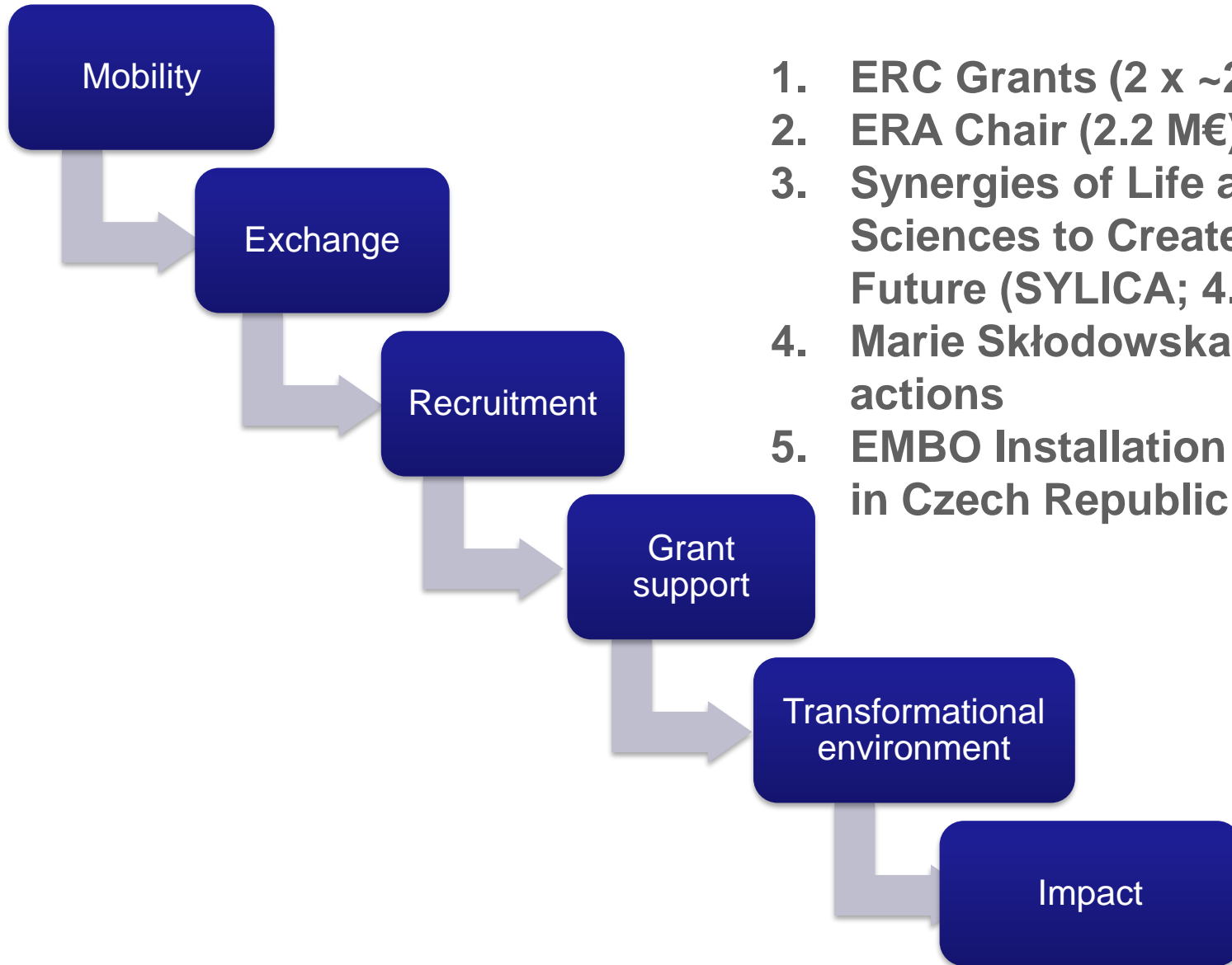
# Technology and Ideas



# Barriers & Obstacles to Research Excellence

- Excellence is not well understood
- Governance mechanisms are in an early development stage
- Human capital or skills are under appreciated
- Financing from National sources not consistent with support for excellent practices
- Challenges to setting and implementing priorities

# International Funding



1. ERC Grants (2 x ~2M€)
2. ERA Chair (2.2 M€)
3. Synergies of Life and Material Sciences to Create a New Future (SYLICA; 4.4 M€)
4. Marie Skłodowska-Curie actions
5. EMBO Installation (7 out of 16 in Czech Republic)



# Culture of Excellence

## CEITEC's First 2 ERC Grant



**Pavel Plevka**



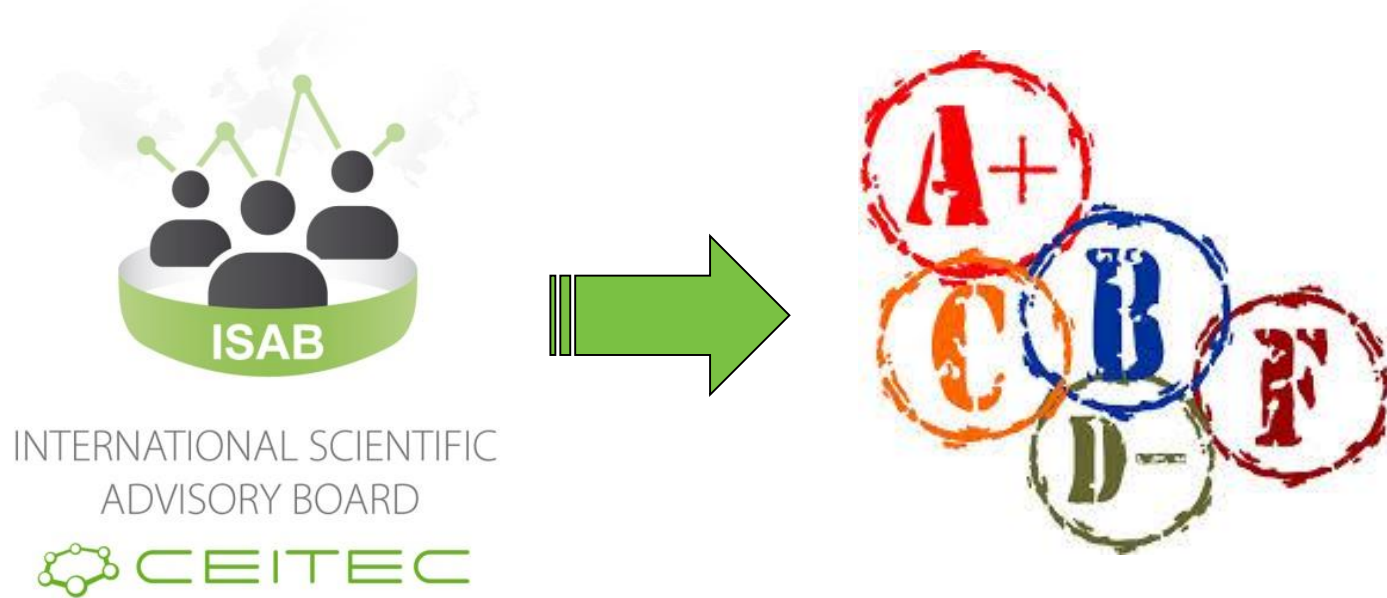
**European Research Council**

Established by the European Commission



**Richard Stefl**

# Measuring Success Against Global Standards

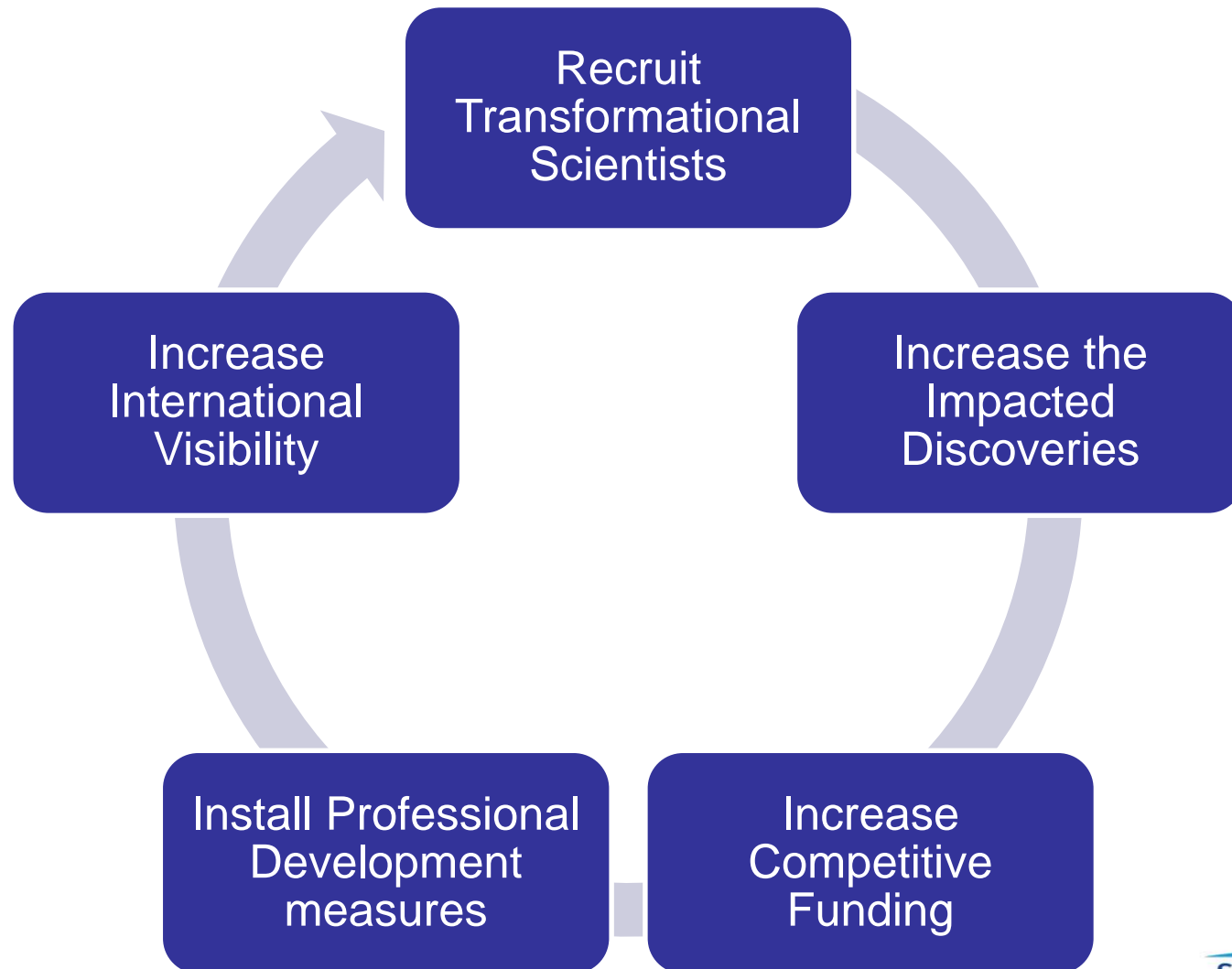


**Board consists solely of Western European and US Members**

**Evaluation Sept. 2014 based on past performance, vision plan,  
and laboratory visit**

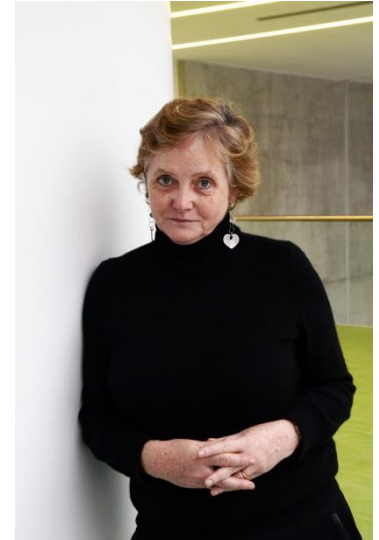
# ERA Chair concept of transformation

Q2 2014 - Q2 2019



# The ERA Chair Culture as a Catalyst to Maximize the Potential of CEITEC

- 6/2014 – 5/2019
- ERA Chair – Mary O'Connell
- Grants support system development
- International outreach and dissemination
- Attractive scientific environment



# Why do we want an attractive environment?



# The ERA Chair Culture as a Catalyst to Maximize the Potential of CEITEC

## Attractive scientific environment

- Creating conditions for idea-driven and competitive scientific environment



HR EXCELLENCE IN RESEARCH

- After endorsement of the Charter & Code by CEITEC in 2012, CEITEC and Masaryk University aim at putting the proposed measures into practice



# International Recruitment

## Foreign employees

Research programme	Long-term stay			Short-term stay			TOTAL
	EU	outside EU		EU	outside EU		
Advanced Nanotechnologies and Microtechnologies	4	4	8	0	0	0	8
Advanced Materials	2	0	2	0	0	0	2
Structural Biology	13	3	16	29	13	42	58
Genomics and Proteomics of Plant Systems	18	3	21	1	0	1	22
Molecular Medicine	2	1	3	0	2	2	5
Brain and Mind Research	1	1	2	0	1	1	3
Molecular Veterinary Medicine	0	2	2	0	0	0	2
CEITEC administration	0	1	1	0	0	0	1
<b>Sum total</b>	<b>40</b>	<b>15</b>	<b>55</b>	<b>30</b>	<b>16</b>	<b>46</b>	<b>101</b>



CEITEC

Central European Institute of Technology  
BRNO | CZECH REPUBLIC

# SCIENTIFIC EVENTS 2015

## JULY

### **EMBO Practical Workshop - "Analysis of non-coding RNAs: per aspera ad astra"**

/ University Campus Bohunice, Brno / July 25 – 31 / Workshop

### **A Practical Course in Three-Dimensional Electron Microscopy**

/ University Campus Bohunice, Brno / July 25 -31 / Summer School

## SEPTEMBER

### **Frontiers in Life and Material Sciences: Creating Life in 3D**

/ Brno / September 2-4 / CEITEC / ICRC Conference

### **EMBO Conference: Signalling in plant development**

/ Hotel International Brno / September 20-24 / Conference

## OCTOBER

### **1st Workshop on TP53 Analysis in CLL**

/ Brno / October 1-3 / Workshop

### **15th European Congress on Clinical Neurophysiology**

/ Hotel International Brno / September 30 – October 4 / Conference

Regular events:

Life Science Seminar Series

Night of Better Cooperation in Scientific Research

[www.ceitec.eu](http://www.ceitec.eu)



EUROPEAN UNION  
EUROPEAN REGIONAL DEVELOPMENT FUND  
INVESTING IN YOUR FUTURE



OP Research and  
Development for Innovation

# Summary

- **Openness** to implement new learnings and best practice
- **Partner** with organizations represent your aspirations
- Enable **financial support** mechanisms for excellence
- **Cultural environment** favoring transformation is essential

# Thank you for your attention



Central European Institute of Technology  
c/o Masaryk University  
Žerotínovo nám. 9  
601 77 Brno, Czech Republic

[www.ceitec.eu](http://www.ceitec.eu) | [info@ceitec.cz](mailto:info@ceitec.cz)



EUROPEAN UNION  
EUROPEAN REGIONAL DEVELOPMENT FUND  
INVESTING IN YOUR FUTURE



**OP Research and  
Development for Innovation**

