



# Research results from electronic eye analysis

Ing. Jana Štefániková, PhD.

XXI. Vedecká konferencia s medzinárodnou účasťou  
Bezpečnosť a kontrola potravín  
21.03.2024





# Establishment of AgroBioTech Research Centre

- **2015** under the project ITMS 26220220180 “Creation of the AgroBioTech Research Centre“
- 2-levels of operation:
  - 35 employees in research and operation on daily basis
  - 150 members of faculties SUA in Nitra
- **Areas of research:** Research activity applicable in practice in agrobiology, the processing technology of agricultural products and the agri-food industry, biotechnology, genetic technologies, agroecology, bioenergetics, and bioeconomy.



supported by

• Visegrad Fund

# Laboratories and Departments

- **6 departments**

- Department of Agrobiology
- Department of Applied Ecology and Bioenergy
- Department of Bioeconomy
- Department of Biosystemic Engineering
- Department of Biotechnics and Landscape Modeling
- Department of Food Technology and Biotechnology

- **34 laboratories**



**SUA**  
Slovak University  
of Agriculture  
in Nitra

**SUA·ABT RC**  
AgroBioTech  
Research  
Centre



**SUA·FAFR**  
Faculty  
of Agrobiology  
and Food Resources



**SUA·FHLE**  
Faculty of Horticulture  
and Landscape  
Engineering



**SUA·FBFS**  
Faculty  
of Biotechnology  
and Food Science



**SUA·FESRD**  
Faculty  
of European Studies  
and Regional Development



**SUA·FEM**  
Faculty  
of Economics  
and Management



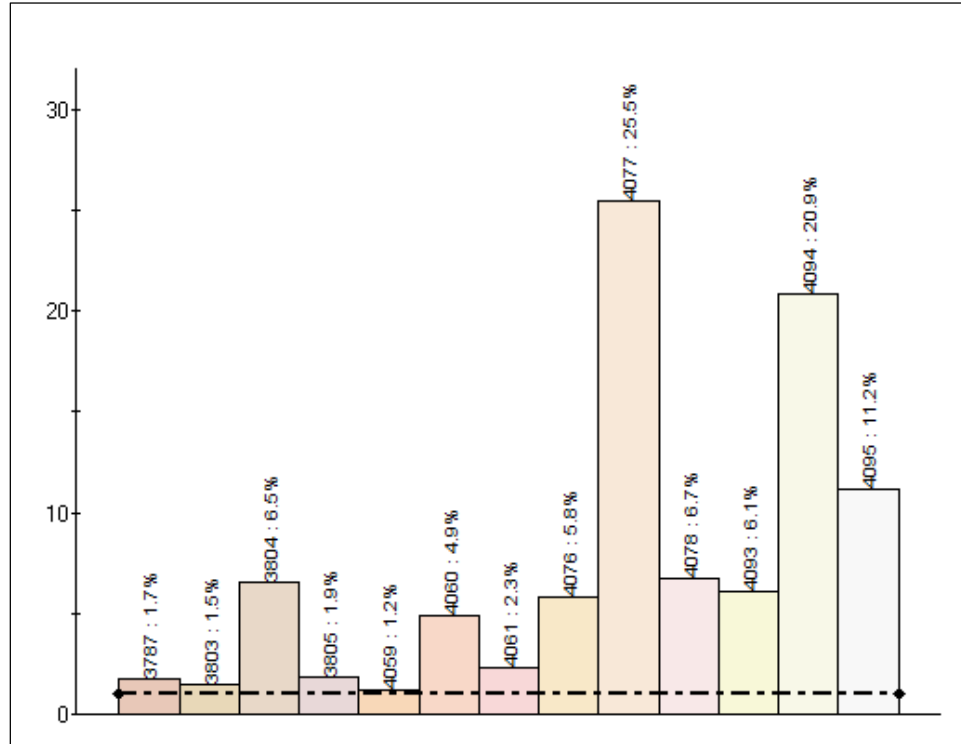
**SUA·FE**  
Faculty  
of Engineering

# Sensory Laboratory

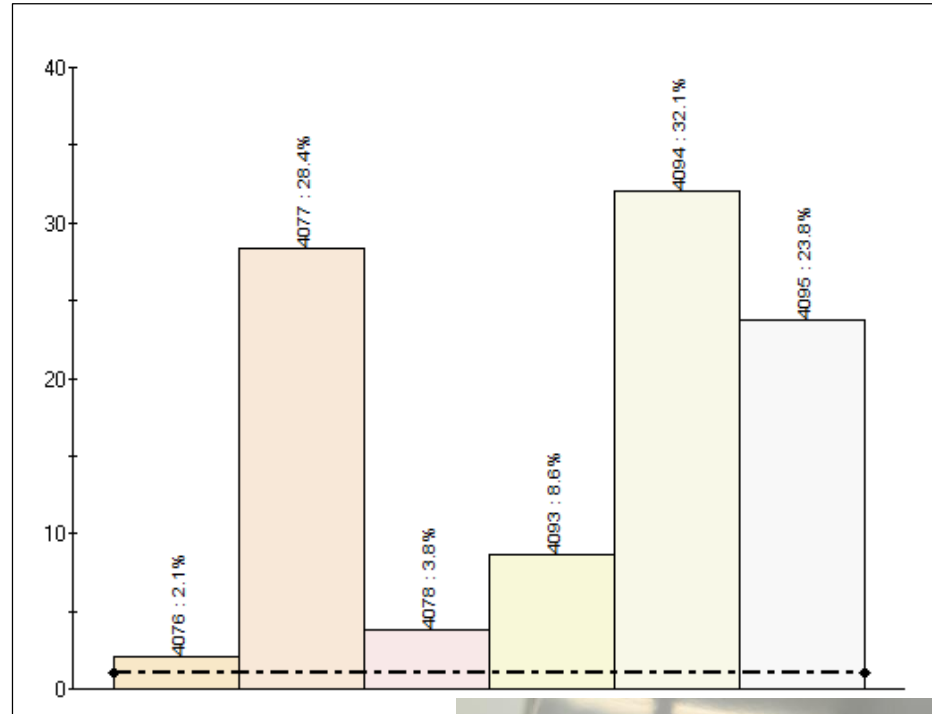
Ing. Jana Štefániková, PhD., Ing. Patrícia Joanidis, PhD.  
Head of Laboratory: doc. Ing. Vladimír Vietoris, PhD.



# SOUS-VIDE POULTRY MEAT



55°C 5h



65°C 3h





# SOUS-VIDE POULTRY MEAT WITH ESSENTIAL OILS

*We recommend EOs:*

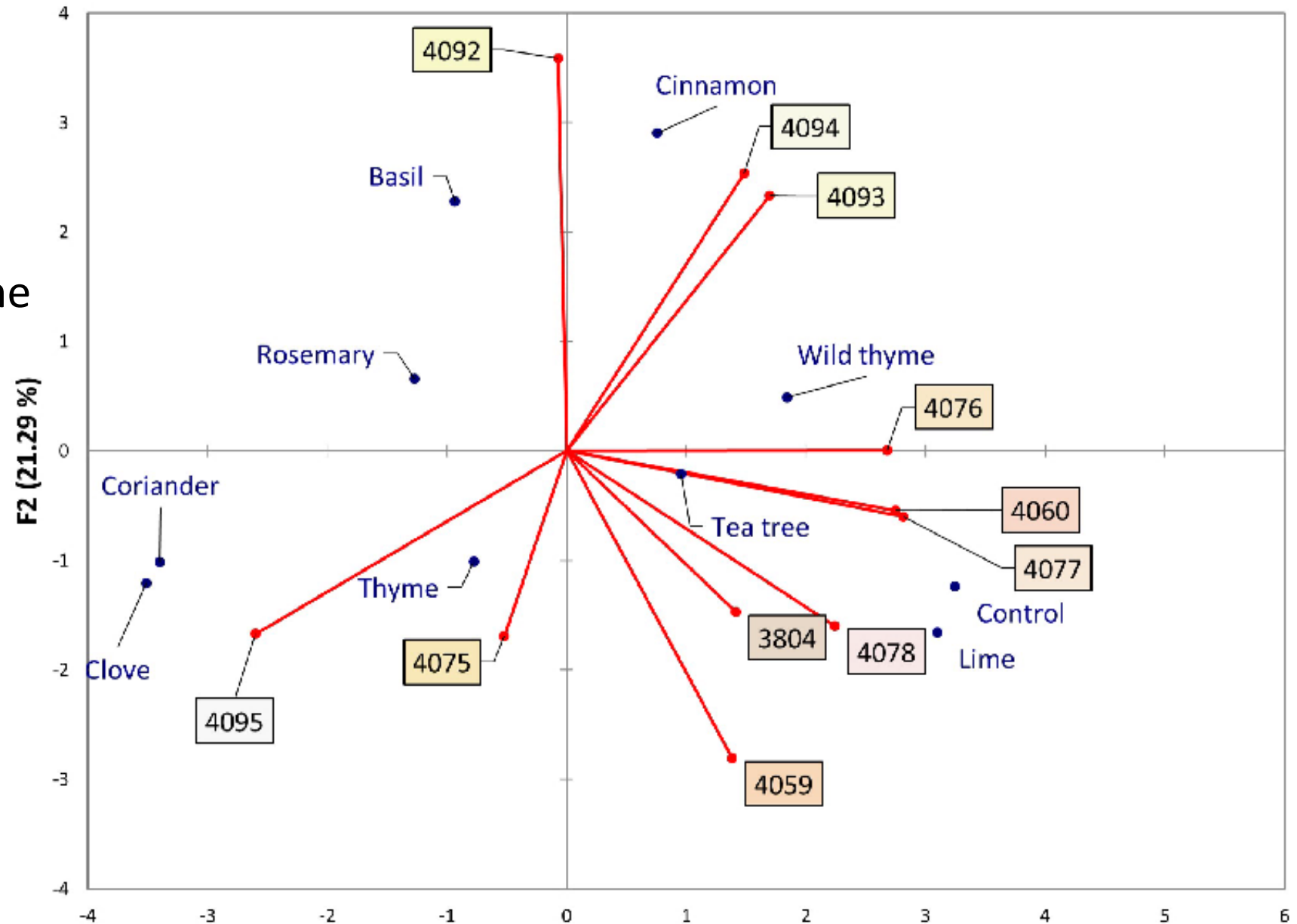
Tea tree – Wild thyme – Lime

> Thyme – Cinnamon

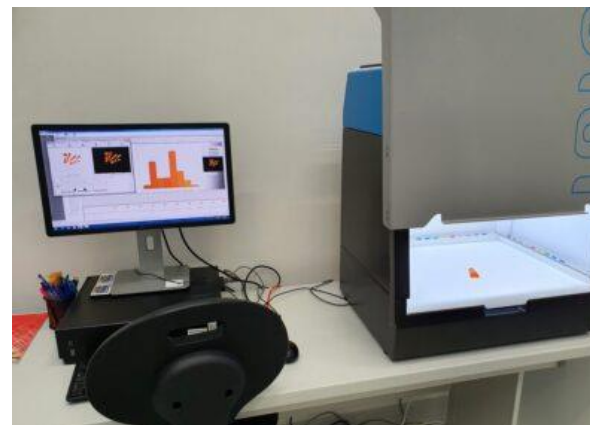
> Rosemary

> Basil

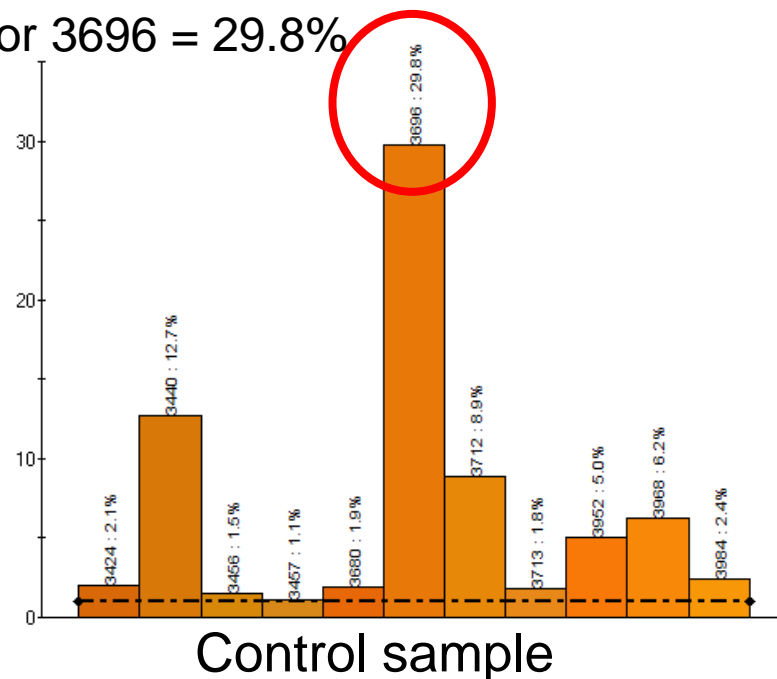
> Coriander – Clove.



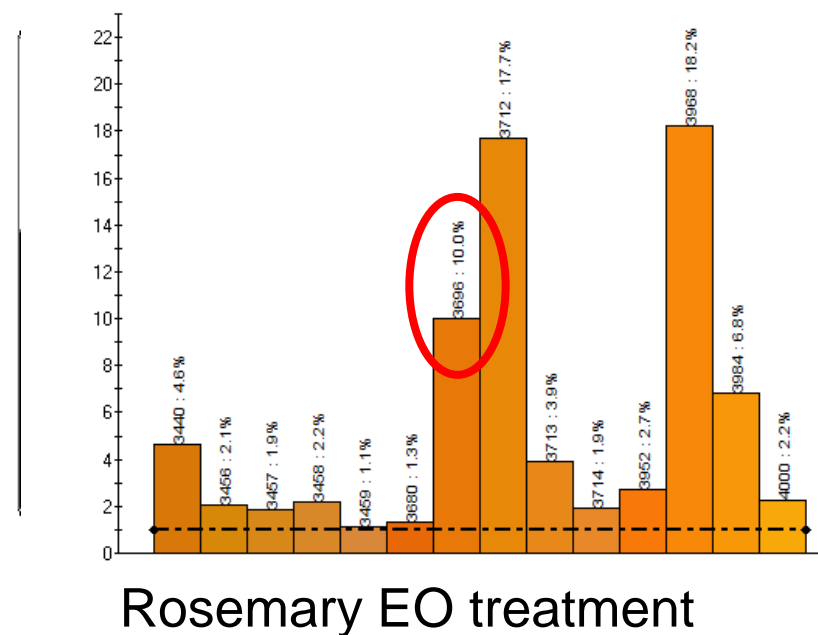
# SOUS-VIDE CARROT WITH ESSENTIAL OILS



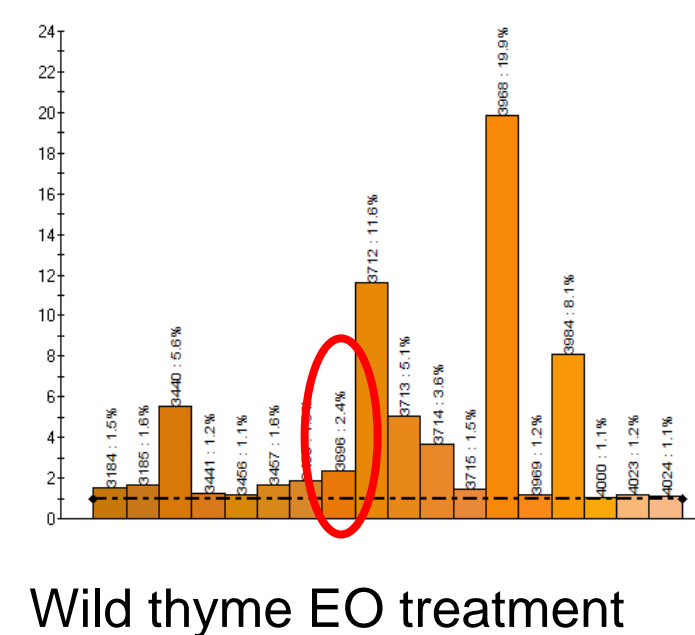
Color 3696 = 29.8%



Color 3696 = 10.0%

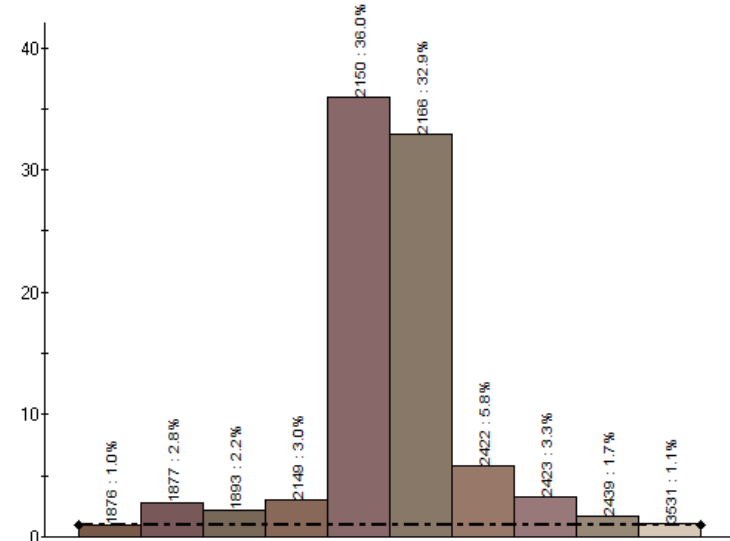
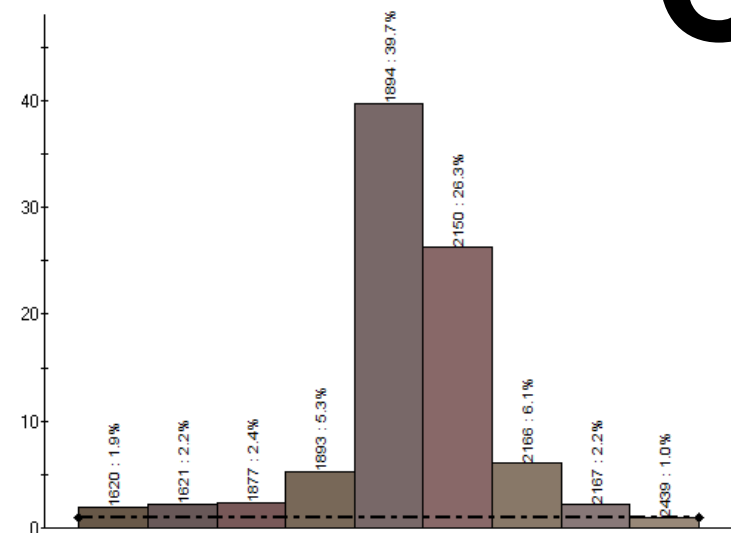


Color 3696 = 2.4%



# CHOCOLATE

## with protein addition

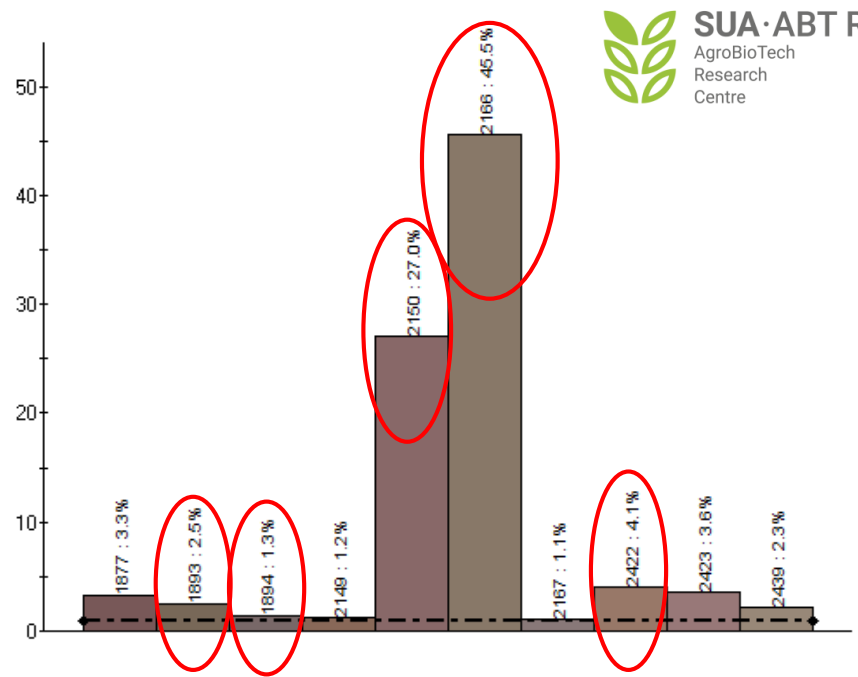


Sample	Color content (%)				
	1893	1894	2150	2166	2422
M	4.42	33.2	34.8	5.98	-
M0	4	11.68	41.98	21.36	-
M1	2.24	11.78	53.72	10.96	-
M2	2.26	4.86	58.98	12.4	-
M3	2.44	1.3	37.08	35.48	3.32
M4	2.28	1.5	27.26	41.36	6.88



# CHOCOLATE

## with protein addition



Alpha MOS color code		1893	1894	2150	2166	2422
RGB coordinates	R	120	120	136	136	152
	G	104	104	104	120	120
	B	88	104	104	104	104
CIELAB coordinates	L*	45.213	45.555	47.289	51.589	53.265
	a*	4.566	6.553	13.213	4.39	11.105
	b*	11.511	2.461	5.207	11.206	13.821
The color name**		Pastel brown	Dim gray	Mauve taupe	Shadow	Beaver

\*\*<https://rgbcolorcode.com/color/converter/>



Official webpage of the project: <https://digitalfoodquality.com/>

**Project Coordinator:** Dr hab. Bartosz Sołowiej

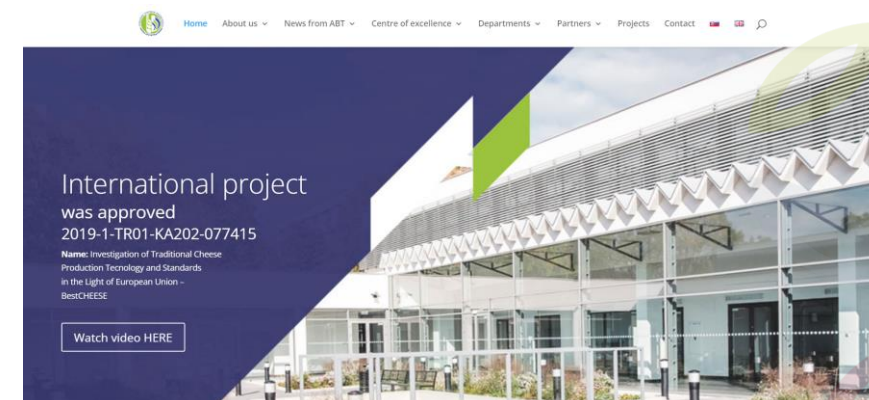


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- Visegrad Fund



# Thank you for your attention!



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