



# ACRYRED • COST Action CA21149 • Reducing acrylamide exposure of consumers by a cereal supply-chain approach targeting asparagine

## Action Details

[MoU](#) – 063/22

CSO Approval date – 27/05/2022

Start date – 18/10/2022

End date – 17/10/2026

<https://acryred.eu/>

## What is COST?

COST (European Cooperation in Science and Technology) is a funding agency for research and innovation networks. Our Actions help connect research initiatives across Europe and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, career and innovation.

<https://cost.eu/actions/CA21149/>

# ACRYRED's challenge is:



*to establish a multi-disciplinary research and communication network on reducing acrylamide formation, involving the entire value chain from grains to consumer products.*

ACRYRED brings together **plant breeders, the agricultural grain farming community, grain traders, European food processors, toxicologists, public regulators and consumer interest groups:**

- to establish non-GMO research requirements on asparagine formation in plants,
- to investigate new economic models that encompass the full supply chain.
- to elaborate new approaches to inform catering/hospitality and consumers about responsible cooking of cereal-based foods.

# Structure of the project



## WG2

Agronomy and Plant Breeding  
Leader: **Marianna Rakszegi (HU)**  
Co-leader: **Viktor Korzun (GE)**

Action Chair: **Nigel Halford (UK)**  
Grant Holder: **Neil Buck (BG)**  
Sci. Communication Coordinator:  
**Małgorzata Starowicz (PL)**  
Grant Awarding Coordinator:  
**Kristina Kukurova (SK)**

## WG3

Chemistry & Processing  
Leader: **Jane Parker (UK)**  
Co-leader: **Christine Nowakowski (USA)**

## WG4

Cereal Supply Chain Economy  
Leader: **Tanya Curtis (UK)**  
Co-leader:

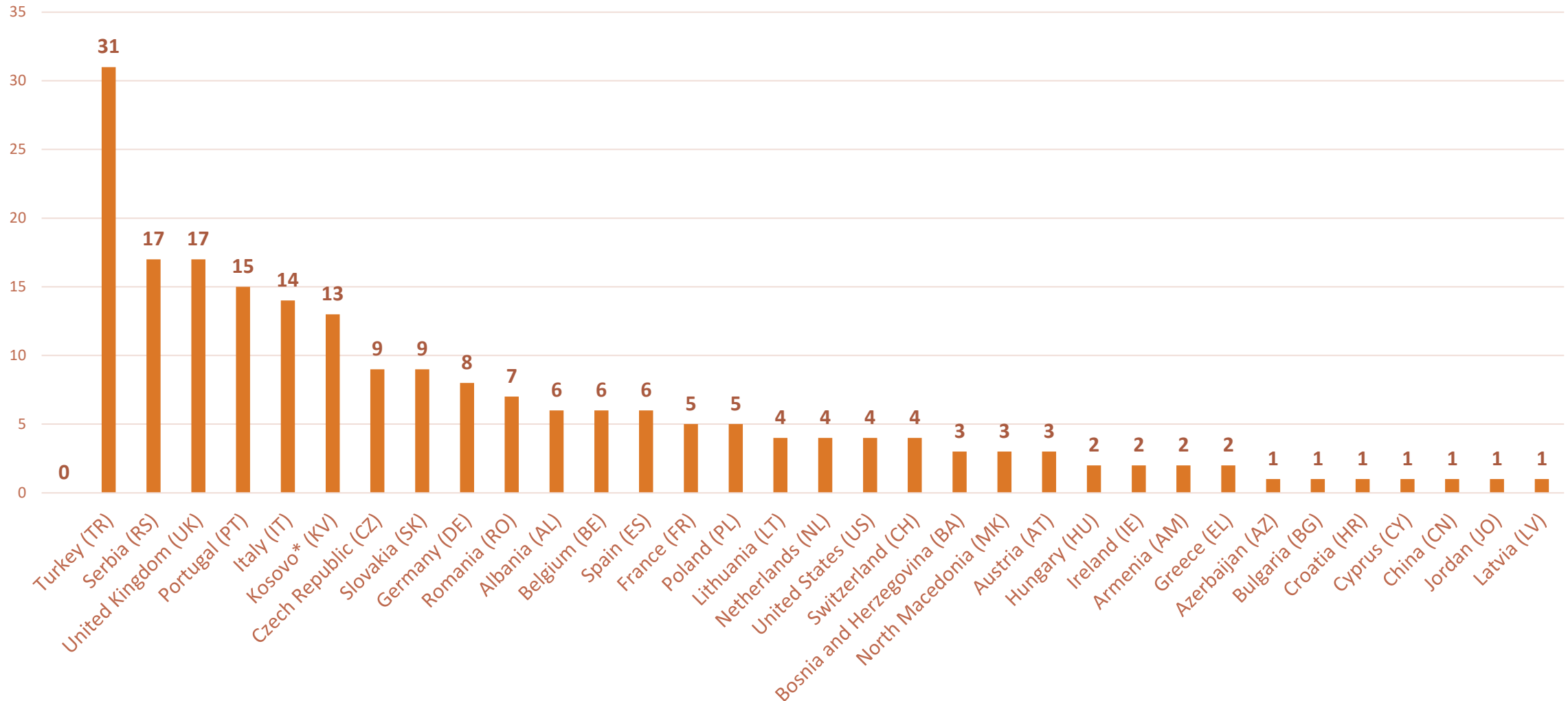
## WG1

Interdisciplinary Exchange and Integration  
of Knowledge on Asparagine and  
Acrylamide  
Leader: **Nigel Halford (UK)**  
Co-leader: **Małgorzata Starowicz (PL)**

## WG5

Risk-benefit of MR Products and  
its Mitigation  
Leader: **Zuzana Ciesarova (SK)**  
Co-leader: **Vural Gökmen (TR)**

# Current status: 209 participants from 34 countries





### ***Interdisciplinary exchange and integration of knowledge on asparagine and acrylamide***

*The WG1 Workshop is organized to gather the WG1 members along with the Management Committee and Core Group Members in order to integrate and connect the results achieved so far by the Working Groups, prepare the forthcoming activities and analyse the cross-cutting topics.*

***WG1 Leaders: Nigel Halford (UK), Małgorzata Starowicz (PL)***

**Number of Participants: 34**

**Number of Countries: 19**

**Remote participation: [ACRYRED Workshop Teams](#)**



# WG1 Agenda - ACRYRED Workshop Teams



	Starting Hour	Ending Hour	Animator
Welcome	10:00:00	10:20:00	Action Chair
Breakout Sessions	10:20:00	11:40:00	2 Facilitators
Coffee Break	11:40:00	11:50:00	-
Grant Period 2 - Brainstorming on objectives and events of GP2	11:50:00	12:20:00	Science Comm Coordinator
Lunch break	12:20:00	13:50:00	-
Breakout Sessions	13:50:00	15:10:00	2 Facilitators
Coffee Break	15:10:00	15:20:00	-
Grant Period 2 - Brainstorming on contacts and links	15:20:00	15:35:00	Science Comm Coordinator
Results achieved	15:35:00	16:35:00	2 Facilitators
Next steps	16:35:00	17:00:00	Action Chair



## ***Approach to the assessment of acrylamide mitigation measures in cereal-based food processing***

*The Training School promotes interdisciplinary training, networking and knowledge exchange to build capacity in monitoring and assessment of acrylamide mitigation measures applied in industrial production.*

***WG5 Leaders: Zuzana Ciesarová (SK), Vural Gökmen (TR)***

**Number of Trainees: 21 from 11 countries**

**Number of Trainers: 7 foreign + 7 Slovak**

**Remote participation: [ACRYRED TS 1st day Teams](#)  
[ACRYRED TS 2nd day Teams](#)**



NATIONAL AGRICULTURAL  
AND FOOD CENTRE

FOOD RESEARCH  
INSTITUTE





# Training School – 07 September 2023 ACRYRED TS 1st day Teams



Time slot	Presentation title	Speaker	Location
09:00 – 09:05	Introduction general: welcoming words	Zuzana Ciesarová, LO (SK)	VUPOP, Trenčianska 55
09:05 – 09:15	Introduction general: welcoming words	Martin Polovka, DG (SK)	VUPOP, Trenčianska 55
09:15 – 09:30	Introduction general: CA 21149 ACRYRED Acrylamide in food and cereal products	Nigel Halford, CA chair (GB)	VUPOP, Trenčianska 55
09:30 – 10:15	Dietary acrylamide exposure and current legislation	Marta Mesias (ES)	VUPOP, Trenčianska 55
10:15 – 10:45	Coffee break		VUPOP, Trenčianska 55
10:45 – 11:30	Acrylamide mitigation options: Toolbox	Vural Gökmen (TR)	VUPOP, Trenčianska 55
11:30 – 12:00	Asparaginase treatment – pros & cons	Zuzana Ciesarová (SK)	VUPOP, Trenčianska 55
12:00 – 13:00	Lunch break		ROZADOL
13:00 – 14:00	Novel techniques in acrylamide and asparagine determination usable in food production	Beverly Hradecká (CZ)	VUPOP, Trenčianska 55
14:00 – 14:45	Aspects of acrylamide mitigation measures: impact on quality and sensory profile	Jane K. Parker (GB)	VUPOP, Trenčianska 55
14:45 – 15:30	Aspects of acrylamide mitigation measures: impact on nutritional profile	Sladjana Zilic (SRB)	VUPOP, Trenčianska 55
17:00 – 19:00	Sightseeing tour (Prešporáčik)	On request - prebooked	<a href="#">Blavacik</a> <a href="#">Presporacik</a>
19:00 – 21:00	TS dinner	Prebooked	<a href="#">Dunajský pivovar</a>



# Training School – 08 September 2023 ACRYRED TS 2nd day Teams



Time slot	Presentation title	Speaker	Location
09:00 – 09:30	Technological aspects of acrylamide mitigation measures in cereal-based food production (progress and economy)	Jozef Murín (SK)	VUPOP, Trenčianska 55
09:30 – 10:00	Analytical sessions: Sensors for asparagine determination	Tanya Curtis (GB)	VUPOP, Trenčianska 55
10:00 – 10:30	Coffee break		VUPOP, Trenčianska 55
10:30 – 12:00	Tutorials: Sensors for asparagine determination	Tanya Curtis (GB)	VUPOP, Trenčianska 55
12:00 – 13:00	Lunch break		ROZADOL
13:00 – 15:00	Practical session I: LC/MS/MS demo of acrylamide/asparagine determination (3 x 40 min)	Jana Horváthová (SK) Janka Kubincová (SK) Zuzana Dubová (SK)	VUP, Priemyselná 4
13:00 – 15:00	Practical session II: sensory and texture analysis of innovative cereal-based products (3 x 40 min)	Kristína Kukurová (SK) Veronika Vigašová (SK)	VUP, Priemyselná 4
13:00 – 15:00	Practical session III: colour analysis of innovative cereal-based products (3 x 40 min)	Blanka Tobolková (SK)	VUP, Priemyselná 4
15:00 – 15:30	Debrief, Certificates	Zuzana Ciesarová (SK) Vural Gökmen (TR)	VUPOP, Trenčianska 55
15:30 – 16:00	Closing remarks	Zuzana Ciesarová (SK) Nigel Halford (GB)	VUPOP, Trenčianska 55