



Teachers' Kit

On a Quest for Facts

A Game to Learn and Practise Fact-Checking Skills with EU Resources

On a Quest for Facts

A Game to Learn and Practise Fact-Checking Skills with EU Resources Teachers' Kit

Publications Office of the European Union – European Commission Representation in Luxembourg

Luxembourg: Publications Office of the European Union, 2025

© European Union, 2025



The reuse policy of European Commission documents is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Unless otherwise noted, the reuse of this document is authorised under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence (https://creativecommons.org/licenses/by/4.0/). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

For any use or reproduction of elements that are not owned by the European Union, permission may need to be sought directly from the respective rightholders.

Print	OA-01-25-091-EN-C
PDF	OA-01-25-091-EN-N

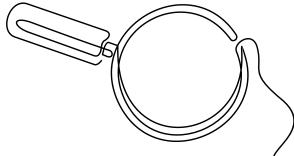
OVERVIEW

This classroom activity, aimed at students aged 16 to 18, is designed to teach critical thinking, fact-checking, and the use of EU resources. The game centres on a fictional social media post and requires students to investigate and resolve false claims using the help of six engaging EU-themed characters.

LEARNING OBJECTIVES

By participating in this activity, students will:

- > learn and practise fact-checking skills,
- familiarise themselves with reliable EU resources on EU law, data, publications and more,
- understand how false information can distort facts and harm public understanding,
- collaborate effectively as a team to solve complex problems.

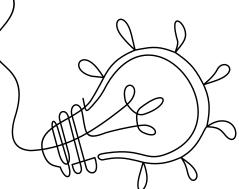


GAME STRUCTURE

Duration: 1 hour

Participants: Students divided into teams of 5-6.

Each team will investigate a number of claims made in the fictional social media post with the help of six EU characters who will guide them to the appropriate resources.



MATERIALS NEEDED

- Fictional social media post: "OMG! Is the EU coming for your dinner?" (provided).
- Discussion under the social media post (provided). While some comments are merely distractions intended to confuse the reader, six characters offer genuine hints leading to trustworthy resources:
 - > Justyna (EU law): Expert in EU law.
 - > Dave (European data): Keeper of data.
 - → **Thelma (EU business):** Expert in public contracts.
 - → Cordelia (EU research): Authority on research.
 - → **Woody (EU staff):** Contact information expert.
 - → Pablo (EU publications): Guide to EU official publications.
- 3. **Response sheet** to take notes (provided).

- 4. **Access to resources:** Either printed materials (provided in the Annex) or online links to the EU platforms:
 - → European Commission website (https://commission.europa.eu/index_en)
 - → Eur-Lex (https://eur-lex.europa.eu)
 - → Tenders Electronic Daily (TED) (https://ted.europa.eu)
 - → EU Research Results (CORDIS) (https://cordis.europa.eu)
 - → European data portal (https://data.europa.eu)
 - → EU Whoiswho (https://op.europa.eu/en/web/who-is-who)
 - → EU Publications (https://op.europa.eu)
- 5. **Scoring table** (provided).
- Small prizes for winners (optional).

GAME STEPS

Warm up: Fact-checking and verified resources STEP 0 → A brief presentation on fact-checking and EU resources, with 2-3 warm-up (optional) questions (Do you know the difference between disinformation and (5 minutes) misinformation? Do you check sources before sharing on social media? What resources do you use for verifying information?). Introduction Explain the rules of the game. STEP 1 (5 minutes) > Explain that some claims in the social media post are false and that their task is to uncover the facts with the help of the comments, only some of which are helpful. Create teams and distribute materials Divide the class into teams of 5-6. STEP 2 Ask the teams to come up with a fun name for their group. (5 minutes) → Meanwhile, distribute copies of the fictional social media post and the related comments. Investigation phase STEP 3 → Teams investigate the claims in the fictional social media post using the six EU (20 minutes) characters as their guides. Begin by asking the students which comments they consider useful for their investigation. Only then distribute the response sheets. Character: Dave Claim 1: Lobbying by Task: Browse the <u>Transparency Register</u> for Planet Wurst and establish that it **Planet Wurst** is not listed there, while registration in the register is a requirement for meeting certain decision-makers or senior staff of the EU institutions. Character: Woody Claim 2: Directorate-General Task: Establish that Directorate-General for Animal and Plant Products is not a for Animal and Plant real service of the European Commission by searching the EU Whoiswho **Products** directory. **Character: Thelma** Claim 3: ECB hot dog contract Search TED (Contracts awarded by EU Institutions) to see that the Task: European Central Bank has never awarded a €650,000 contract for hot dogs to Planet Wurst. Cordelia Character: Claim 4: The need for meat Task: Search CORDIS for the "Meat4All" project, which doesn't mention production to triple that meat production needs to increase, but rather focuses on more to protect EU farmers sustainable practices. Character: Justyna Claim 5: No common authority Task: Consult the European Food Safety Authority (EFSA) — ensuring safe for food safety food and animal feed in the EU summary or Regulation (EC) 178/2002 to confirm that the EU does have a food safety authority with clear rules.

Character:

Task:

Pablo

food safety.

Check the Food safety factsheet to see that EU has multiple rules on

Claim 6:

Lack of food safety

standards in the EU

Team presentations

- > Each team presents their findings for each claim, explaining:
 - → the false claims they have identified;
 - → the resource(s) they used;
 - → why the claims are false.
- Scoring (optional): the team with the highest score wins and is crowned 'Hot Dog Detectives'. Hand out certificates or small prizes to the winners, based on their score for:
 - → correct use of resources (12 points);
 - → accuracy of explanation (12 points);
 - → collaboration and teamwork (6 points).

STEP 4

(15 minutes)

DEBRIEF (15 MINUTES)

- → After the scoring and presentations, each team takes a few minutes to reflect on their experience. Invite a few teams to share their insights with the class to foster a collaborative discussion. This step helps students consolidate their learning and reflect on the skills they have developed.
- Encourage them to discuss:
 - → What strategies worked well in investigating the claims?
 - → Which parts of the process were challenging, and why?
 - → How did students feel about using the EU resources?
 - What surprised them most about the fictional social media post or the investigation process?
 - What did students learn about identifying verified information?

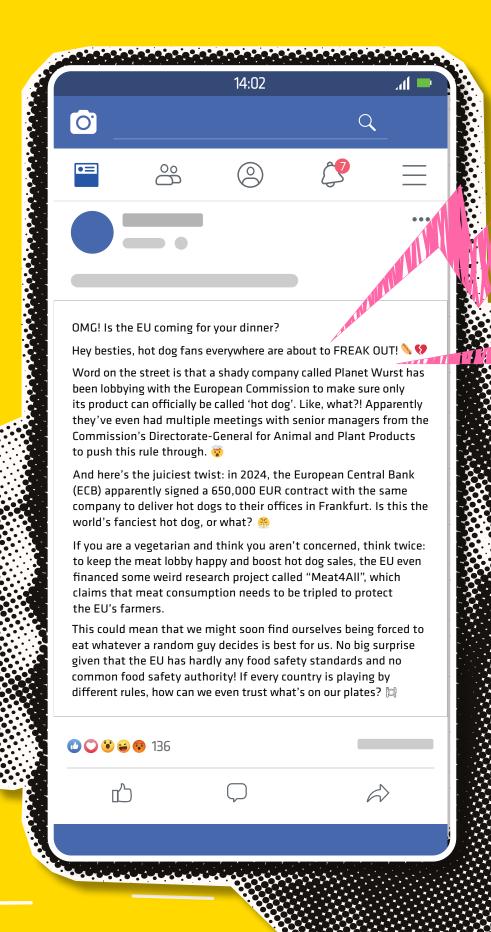


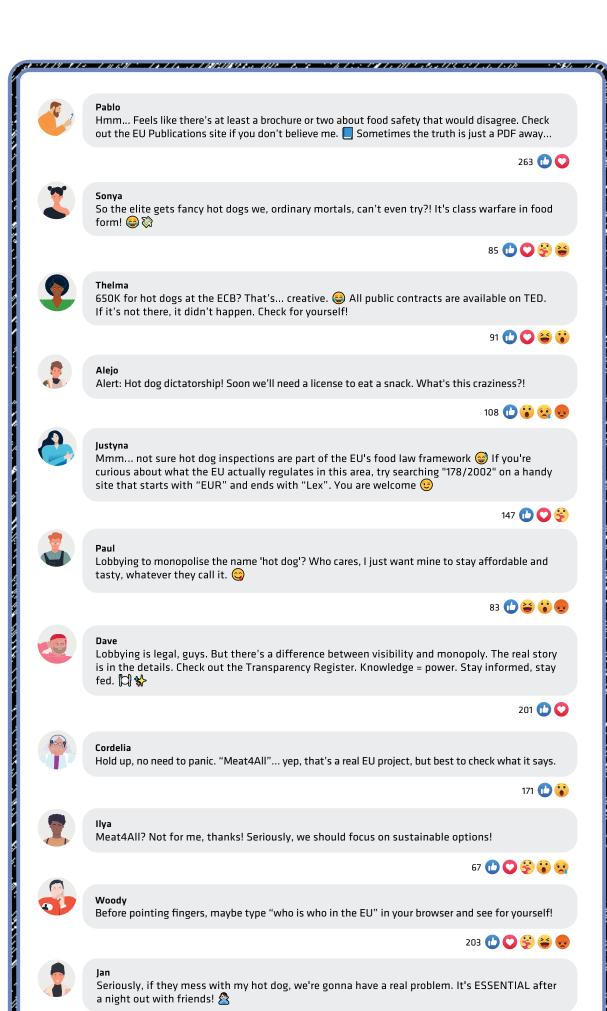
SCORING TABLE

Group name	Correct use of resources (12 points)	Clarity of explanation (12 points)	Team work (6 points)	Total

RESPONSE SHEET

	Describe the false information	
	Name the resource used to debunk it	
	Explain why it is false information	
JUSTYNA		
	Describe the false information	
and a	Name the resource used to debunk it	
	Explain why it is false information	
DAVE		
	Describe the false information	
	Name the resource used to debunk it	
	Explain why it is false information	
THELMA		
HILLMA		
THEEMA	Describe the false information	
THEEMA		
OO I	false information Name the resource	
CORDELIA	Name the resource used to debunk it Explain why it is	
	Name the resource used to debunk it Explain why it is	
00	Name the resource used to debunk it Explain why it is false information Describe the	
00	Name the resource used to debunk it Explain why it is false information Describe the false information Name the resource	
	False information Name the resource used to debunk it Explain why it is false information Describe the false information Name the resource used to debunk it Explain why it is	
CORDELIA	False information Name the resource used to debunk it Explain why it is false information Describe the false information Name the resource used to debunk it Explain why it is	
CORDELIA	Name the resource used to debunk it Explain why it is false information Describe the false information Name the resource used to debunk it Explain why it is false information Describe the the false information	
CORDELIA	Name the resource used to debunk it Explain why it is false information Describe the false information Name the resource used to debunk it Explain why it is false information Describe the false information	





136 🜓 💟 🐸 😯

ANNEX

LIST OF HANDOUTS

EU tenders: Contracts awarded by EU Institutions	11
EU law: European Food Safety Authority (EFSA) – ensuring safe food and animal feed in the EU	.14
EU publications: Food safety	18
EU research: Sustainable, slaughter-free meat removes need to kill animals	.20
EU Whoiswho: Directorate-General for Health and Food Safety (SANTE)	.23
Furancan data: Ell Transparancy Podictor	25

Contracts awarded by EU Institutions

Download here the full set of results

		lacksquare		╚	١
PDF	IJ	115	٦	SV	

1	Change year —	
	2024	

– EU Institutions – European Central Bank

Search

	Notice publication number	Publication date	Title	Official name	Type of procedure	The contract is awarded within a framework agreement
>	19286-2024	12/01/2024	Germany-Frankfurt am Main: Provision of Audit and Investigative Services (Lots 1-3)	European Central Bank	Negotiated with prior publication of a call for competition / competitive with negotiation	yes
>	126712-2024	01/03/2024	Germany-Frankfurt am Main: Provision of Temporary Accommodation	European Central Bank	Negotiated with prior publication of a call for competition / competitive with negotiation	yes
>	141726-2024	08/03/2024	Germany-Frankfurt am Main: Transportation Services	European Central Bank	Negotiated with prior publication of a call for competition / competitive with negotiation	yes
Þ	141730-2024	08/03/2024	Germany-Frankfurt am Main: Provision of Staff Info Point and Other Staff Information and Integration Services	European Central Bank	Negotiated with prior publication of a call for competition / competitive with negotiation	yes
>	191512-2024	02/04/2024	Germany-Frankfurt am Main: Electronic Trading Platforms (ETPs)	European Central Bank	Negotiated with prior publication of a call for competition / competitive with negotiation	yes
×	265874-2024	06/05/2024	Germany-Frankfurt am Main: Provision of Editing in English of Supervisory, Financial and Economic Documents and Related Works and Services	European Central Bank	Open	yes

	Notice publication number	Publication date	Title	Official name	Type of procedure	The contract is awarded within a framework agreement
>	450001-2024	26/07/2024	Sweden, Denmark, Hungary, Spain, Netherlands, Estonia, Belgium, Slovakia, Finland, Slovenia, Poland, Czechia, Portugal, France, Germany, Latvia, Italy, Greece – Recruitment services – Attracting and Sourcing of candidates – active candidates (marketing plans and publishing) and passive candidates (candidate search)	European Medicines Agency, MED - European Medicines Agency, Agency for Support for BEREC (BEREC Office), Circular Bio-based Europe Joint Undertaking, Clean Aviation Joint Undertaking, Community Plant Variety Office, ECB - European Central Bank, Eurojust, European Banking Authority, European Border and Coast Guard Agency (FRONTEX), European Centre for Disease Prevention and Control, European Centre for the Development of Vocational Training (CEDEFOP), European Chemicals Agency, European Environment Agency (EEA), European Fisheries Control Agency (EFCA), European Institute of Innovation and Technology, European Institute of Innovation and Technology, European Insurance and Occupational Pensions Authority, European Labour Authority (ELA), European Monitoring Centre for Drugs and Drug Addiction, European Securities and Markets Authority, European Training Foundation (ETF), European Union Agency for Cybersecurity (ENISA), European Union Agency for the Cooperation of Energy Regulators, European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA), European Union Agency for the Space Programme, European Union Agency, European Union Satellite Centre, F4E - Fusion for Energy Joint Undertaking, Innovative Health Initiative Joint Undertaking, (IHI JU), Single Resolution Board (SRB)	Open	no

	Notice publication number	Publication date	Title	Official name	Type of procedure	The contract is awarded within a framework agreement
•	517860-2024	29/08/2024	Sweden, Ireland, Spain, France, Germany, Latvia, Netherlands, Belgium, Greece, Luxembourg – Public relations services – Exceptional Negotiated Procedure without publication in the OJ, for the increase of ceiling of Single Framework Contract for Media Relations, Outreach and Interactive online actions	European Commission, DG COMM - Communication, EP - European Parliament, European External Action Service (EEAS), OMBUDSMAN - European Ombudsman, The General Secretariat of the Council of the European Union, Agence Exécutive du Conseil Européen de la Recherche, European Education and Culture Executive Agency (EACEA), European Research Executive Agency (REA), Agency for Support for BEREC (BEREC Office), ECB - European Centrel Bank, European Centrel Bank, European Defence Agency, European Foundation for the Improvement of Living and Working Conditions, European Insurance and Occupational Pensions Authority, European Investment Bank, European Medicines Agency, European Police Office, European Police Office, European Police Office, European Securities and Markets Authority, European Union Agency for Cybersecurity (ENISA), European Union Intellectual Property Office, F4E - Fusion for Energy Joint Undertaking, Single Resolution Board (SRB), Committee of the Regions of the European Economic and Social Committee	Negotiated without prior call for competition	no
					Previous	1 Next

European Food Safety Authority (EFSA) — ensuring safe food and animal feed in the EU

SUMMARY OF:

Regulation (EC) No 178/2002 — general principles and requirements of food law, establishing the European Food Safety Authority and procedures for food safety

Regulation (EU) 2019/1381 — transparency and sustainability of the EU risk assessment in the food chain

WHAT IS THE AIM OF THE REGULATION?

- Known as the regulation on general food law, it strengthens the rules on the safety of food and feed in the EU.
- It also sets up the European Food Safety Authority (EFSA)[™], which provides support for the scientific testing and evaluation of food and feed.
- The regulation does not cover production on the farm for private use or the handling of food at home.

KEY POINTS

- No foods dangerous to health or unfit for consumption may be put on sale. The following factors are taken into account:
 - the normal conditions under which food is used by the consumer;
 - information provided to the consumer;
 - the effect on health, in the short and long term;
 - · cumulative toxic effects;
 - the particular health sensitivities of a specific category of consumers where the food is intended for that category of consumers.
- If any unsafe food or feed is part of a batch, it is assumed that the whole batch is unsafe.
- Food legislation applies at all stages of the food chain, from production, processing, transport and distribution to supply. In particular, food businesses must:
 - guarantee the **traceability** of food, feed and food-producing animals at all stages of production and distribution,
 - immediately withdraw food or feed from the market, or recall products already supplied, if these are considered to be harmful to health,
 - inform the appropriate authorities, and consumers where necessary.

- EFSA provides scientific and technical support to the European Commission and EU countries in all areas impacting on food safety. It is also responsible for coordinating risk assessments, identifying emerging risks and advising on crisis management.
- Where risk is identified following a health risk analysis, EU countries and the Commission may adopt provisional precautionary measures consistent with a high level of health protection.
- The **rapid alert system** for food and feed (RASFF) involving EU countries, the Commission and EFSA, provides for information sharing on:
 - measures to restrict the circulation of food, or its withdrawal from the market;
 - action taken to prevent, limit or impose specific conditions on the placing on the market or the eventual use of food or feed;
 - the rejection of a batch of imported food.
- This information must also be made available to the general public where appropriate.
- Where food or feed presents a serious and uncontainable risk to health or the
 environment, the Commission's emergency protective measures can include
 suspending trade in or imports of the product. EU countries may take similar
 measures if the Commission fails to take action.
- Together with EFSA and EU countries, the Commission must draw up a general
 crisis-management plan to cover situations where the standard emergency
 protective measures are insufficient. Where such a case is identified the
 Commission must immediately set up a crisis unit to identify the options for
 protecting human health.
- The EU also aims to protect consumers against fraudulent or deceptive practices in the food trade, such as food adulteration (for example, horsemeat in beef products), and provide a basis for consumers to make informed choices about food.

Regulation (EU) 2019/1381 on the transparency and sustainability of the EU risk assessment in the food chain amends mainly Regulation (EC) No 178/2002. It seeks to do the following.

- Ensure more transparency: The public will have automatic access to all studies and information submitted in support of any request addressed to the EFSA, e.g. to all studies supporting a request for an authorisation by a food business operator, early on in the risk assessment process. Duly justified confidential information will not be disclosed. Stakeholders and the general public will also be consulted on these submitted studies. The feedback received with allow EFSA to have access to the widest evidence base possible before it delivers its scientific advice.
- Increase the independence and robustness of submitted scientific studies: EFSA will be notified of all studies, when these are commissioned, with a view to a future application procedure, during the pre-submission phase. This will guarantee that companies applying for authorisations submit all relevant information and do not hold back unfavourable studies. EFSA will also provide general advice to applicants, in particular small and medium-sized enterprises, prior to the submission of the dossier. The Commission may ask EFSA to commission additional studies for verification purposes in exceptional circumstances of serious controversies or conflicting results. The Commission will also perform fact-finding missions to verify the compliance of laboratories with the applicable standards for carrying out studies submitted to EFSA. The outcome of the fact-finding missions will be presented in an overview report.
- Strengthen governance and scientific cooperation: EU countries, civil society and the European Parliament will be involved in the governance of EFSA by being duly represented in its management board. EU countries will encourage EFSA's scientific capacity to develop, for example, by means of joint projects and the

- sharing of best practices, and will undertake promotion activities to ensure the recruitment of the best independent experts in EFSA's work.
- **Develop comprehensive risk communication**: a general plan for risk communication will be adopted by means of an implementing act to ensure a comprehensive risk communication framework throughout the risk-analysis process, combined with open dialogue amongst all interested parties.

FROM WHEN DOES THE REGULATION APPLY?

Regulation (EC) No 178/2002 has applied since 21 February 2002.

The new rules contained in amending Regulation (EU) 2019/1381 apply as of 27 March 2021.

BACKGROUND

Regulation (EU) 2019/1381 also amends another 8 sectoral acts (i.e. acts on specific related sectors), as far as transparency aspects are concerned:

- Directive 2001/18/EC on the deliberate release into the environment of genetically modified organisms,
- Regulation (EC) No 1829/2003 on genetically modified food and feed,
- Regulation (EC) No 1831/2003 on feed additives,
- Regulation (EC) No 2065/2003 on smoke flavourings,
- Regulation (EC) No 1935/2004 on food contact materials,
- Regulation (EC) No 1331/2008 on the common authorisation procedure for food additives, food enzymes and food flavourings,
- Regulation (EC) No 1107/2009 on plant protection products and
- Regulation (EU) No 2015/2283 on novel foods.

For more information, see:

Food safety: overview (European Commission).

MAIN DOCUMENTS

Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, pp. 1-24)

Successive amendments to Regulation (EC) No 178/2002 have been incorporated into the original document. This consolidated version is of documentary value only.

Regulation (EU) 2019/1381 of the European Parliament and of the Council of 20 June 2019 on the transparency and sustainability of the EU risk assessment in the food chain and amending Regulations (EC) No 178/2002, (EC) No 1829/2003, (EC) No 1831/2003, (EC) No 2065/2003, (EC) No 1935/2004, (EC) No 1331/2008, (EC) No 1107/2009, (EU) 2015/2283 and Directive 2001/18/EC (OJ L 231, 6.9.2019, pp. 1-28)

RELATED DOCUMENTS

Regulation (EU) 2017/745 of the European Parliament and of the Council of 5 April 2017 on medical devices, amending Directive 2001/83/EC, Regulation (EC) No 178/2002 and Regulation (EC) No 1223/2009 and repealing Council Directives 90/385/EEC and 93/42/EEC (OJ L 117, 5.5.2017, pp. 1-175)

See consolidated version.

Regulation (EU) 2015/2283 of the European Parliament and of the Council of 25 November 2015 on novel foods, amending Regulation (EU) No 1169/2011 of the European Parliament and of the Council and repealing Regulation (EC) No 258/97 of the European Parliament and of the Council and Commission Regulation (EC) No 1852/2001 (OJ L 327, 11.12.2015, pp. 1-22)

See consolidated version.

Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, pp. 1-50)

See consolidated version.

Regulation (EC) No 1331/2008 of the European Parliament and of the Council of 16 December 2008 establishing a common authorisation procedure for food additives, food enzymes and food flavourings (OJ L 354, 31.12.2008, pp. 1-6)

See consolidated version.

Regulation (EC) No 1935/2004 of the European Parliament and of the Council of 27 October 2004 on materials and articles intended to come into contact with food and repealing Directives 80/590/EEC and 89/109/EEC (OJ L 338, 13.11.2004, pp. 4-17)

See consolidated version.

Regulation (EC) No 1831/2003 of the European Parliament and of the Council of 22 September 2003 on additives for use in animal nutrition (OJ L 268, 18.10.2003, pp. 29-43)

See consolidated version.

Regulation (EC) No 1829/2003 of the European Parliament and of the Council of 22 September 2003 on genetically modified food and feed (OJ L 268, 18.10.2003, pp. 1-23)

See consolidated version.

last update 01.07.2022

Top









EU action on food safety protects the health of people, animals and plants at every step from farm to fork, while helping Europe's food industry to thrive.

The EU's food-safety policy aims to guarantee that safe and nutritious food is produced or imported into the EU, from healthy plants and animals, while enabling the food industry, Europe's largest manufacturing and employment sector, to operate under the best possible conditions. It safeguards health at every stage of the food chain by preventing food contamination and promoting food hygiene, plant health and animal health and welfare. EU food-labelling rules also provide consumers with information important to their health.

What the EU does

The basic principles of the EU's food safety policy are defined in the EU's general food law, which ensures a high level of protection for people's health and consumer interests, while ensuring the single market works efficiently. The European Food Safety Authority provides scientific advice on food-related issues to help protect people, animals, plants and the environment.

The General Food Law also created proce-

dures and tools to manage emergencies and crises. One example is the Rapid Alert System for Food and Feed that helps ensure that food that does not comply with European rules is removed from the shelves. Whenever significant outbreaks of animal

disease or food poisoning affect consumers, EU authorities can follow the movement of food products via the TRACES (Trade Control and Expert System) electronic system.

The EU also ensures animal health and welfare in the agri-food chain. If there is an outbreak of animal disease, the EU has mechanisms in place to act swiftly. Plant health rules protect crops, fruit, vegetables and forests from harmful pests and

disease from being transported across the EU or imported from abroad.

Reducing food waste has enormous potential to save resources and money and reduce the environmental impact of food. The EU is tackling food waste while ensuring food safety by clarifying relevant EU rules to facilitate action by all players (public and private) and by promoting the sharing of innovation and best practices in this area.





Find out more: https://ec.europa.eu/info/topics/food-safety_en



Getting in touch

with the EU

ONLINE

Information about the European Union in all the official languages of the EU is available on the Europa website at: https://europa.eu/european-union/index_en

IN PERSON

All over the European Union there are hundreds of Europe Direct information centres. You can find the address of the centre nearest you at: https://europa.eu/european-union/contact_en

ON THE PHONE OR BY EMAIL

Europe Direct is a service that answers your questions about the European Union

You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: 00 32 2 299 9696 or
- by email via: https://europa.eu/european-union/contact_en

READ ABOUT EUROPE

Publications about the EU are only a click away on the EU Publications website: https://op.europa.eu/en/publications

EUROPEAN COMMISSION REPRESENTATIONS

The European Commission has offices (representations) in all the Member States of the European Union:

 $https://ec.europa.eu/info/about-european-commission/contact/local-offices-eu-member-countries_en\\$

EUROPEAN PARLIAMENT LIAISON OFFICES

The European Parliament has a liaison office in every Member State of the European Union:

http://www.europarl.europa.eu/at-your-service/en/stay-informed/liaison-offices-in-your-country

EUROPEAN UNION DELEGATIONS

The European Union also has delegations in other parts of the world: https://eeas.europa.eu/headquarters/headquarters-homepage/area/geo_en

Other factsheets in the series 'What the European Union does'

Agriculture and rural development Banking and financial services Borders and security Budget Business and industry Climate action and the European Green Deal Competition Consumers Culture and media Customs Digital economy and society Economy, finance and the euro Education and training Employment and social affairs Energy Environment EU enlargement European neighbourhood policy Food safety Foreign affairs and security policy Fraud prevention Humanitarian aid and civil protection International cooperation and development Justice and fundamental rights Maritime affairs and fisheries Migration and asylum Public health Regional policy Research and innovation

Public health
Regional policy
Research and innovation
Single market
Sport
Taxation
Trade
Transport
Youth



Questions about the European Union? Europe Direct can help: 00 800 6 7 8 9 10 11, http://europedirect.europa.eu

This factsheet is part of the publication 'The European Union: What it is and what it does'. An interactive version, containing links to online content, is available in PDF and HTML format at: https://op.europa.eu/webpub/com/eu-what-it-is/en/

Manuscript completed in January 2020

The European Commission is not liable for any consequence stemming from the reuse of this publication Luxembourg: Publications Office of the European Union,2020



© European Union, 202

The reuse policy of European Commission documents is implemented by the Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39).

Except otherwise noted, the reuse of this document is authorised under a Creative Commons Attribution 4.0 International (CC-BY 4.0) licence (https://creativecommons.org/licenses/by/4.0/). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

For any use or reproduction of elements that are not owned by the European Union, permission may need be sought directly from the respective rightholders.

All pictures: © Shutterstock, © Fotolia

Print	ISBN 978-92-79-94415-4	doi:10.2775/035525	NA-06-18-091-EN-C
PDF	ISBN 978-92-79-94426-0	doi:10.2775/735712	NA-06-18-091-EN-N

Home > Projects & Results > H2020 >

Industrialization and commercialization of a competitive, sustainable and consumer oriented alternative animal protein source



Industrialization and commercialization of a competitive, sustainable and consumer oriented alternative animal protein source

Results in Brief

Sustainable, slaughter-free meat removes need to kill animals

Cultivated meat is an ethical alternative to factory farming, reduces animal-transmitted diseases and produces no greenhouse gases from enteric fermentation.





© JackF/stock.adobe.com

Producing animal protein by cell culture in a controlled environment, known in the industry as 'cultivated meat', uses no antibiotics and hormones and has none of the animal welfare or environmental issues associated with factory farming.

"Our technology uses animal cells to grow meat without the need to slaughter the animal or have a lot of animals to produce meat," says Meat4All project

coordinator Iñigo Charola, co-founder and CEO of <u>BioTech Foods</u> in San Sebastian, Spain.

A small sample – a biopsy – is taken from a healthy animal. The muscle cells are then isolated and cultured in an industrial environment that replicates the conditions of those cells in the living animal.

This involves maintaining animal temperature – 37 °C, feeding with minerals, vitamins and amino acids and providing oxygen – all this without harming or stressing the cells.

"Nutritionally speaking, muscle provides the protein," Charola explains, adding: "Once you isolate those cells, you can use them to produce meat for a long time."

"When you replicate the same conditions as in the animal, the cells do what they are programmed to do – to grow and then to differentiate into muscle. We then harvest it as a product that can be transformed into consumer products like burgers, sausages, nuggets and other formats that have the flavour and texture of traditional meat."

Manufacturing scale at an affordable price

Prior to the EU-funded Meat4All project, most components used to feed the cells were expensive and mainly used in the pharmaceutical industry. "But we were able to find alternative ingredients for the culture media which feed the cells and were food-grade instead of pharma-grade. Working on culture media formulations allowed us to dramatically decrease the cost," Charola says.

Having shown this works in a pilot plant, BioTech is investing EUR 36 million in a new plant in San Sebastian where production will begin in 2024 followed by the commercial launch. The aim is a production capacity of 4 000 tonnes per year of cultivated meat, he adds.

Sustainability advantages

Meat cultured in an environment without contact with animals avoids animal-transmitted diseases and the use of antibiotics.

It also requires many fewer animals, which is better for the planet. "Meat production puts strong demand on natural resources – 38 % of the world's habitable land is used for feeding animals and that's not sustainable at all," notes Charola.

"To produce one kilogramme of beef requires around 15 415 litres of water for the whole production cycle, including everything you feed the animal. It is estimated we will need 90-95 % less water to produce [cultivated] meat."

The <u>Food and Agriculture Organization FAO</u> of the United Nations notes that animal agriculture is responsible for 14.5 % of the world's total greenhouse gas emissions, mainly methane. Cultivated meat can reduce this. "We don't have the animal, just the cells, so there is no methane produced by enteric fermentation," says Charola.

Acceptable to consumers?

Market research in many countries has found that younger people are willing to accept new technologies that contribute to more sustainable food production. But today, cultivated meat products are only authorised in Singapore.

With restrictions on large-scale production in many regions, consumer taste tests have not yet been done on this or other EU-funded cultivated meats such as those connected with the CULTURED BEEF project and CCMeat project.

"Food can only be successful when it meets two criteria – you like what you eat and you can afford it," according to Charola. Beyond that, for novel foods to be accepted, "it is important to communicate transparently, so consumers have all the information about the benefits."

Keywords

Meat4All, cultivated meat, greenhouse gases, methane, antibiotics, natural resources, beef, food



EU Whoiswho

Add to my lists vCard Permanent link Create alert <u>Print</u> Embed in website More



European Commission (COMMISSION)

European Union > European Commission (COMMISSION)

https://commission.europa.eu

Rue de la Loi 200 / Wetstraat 200 • 1040 • (postal office Box: 1049) • Bruxelles / Brussel • Belgium



+32-229-91111

Sublevels Map Publications College of Commissioners Cabinets of Commissioners [SG] Secretariat-General [SG-REFORM] Reform and Investment Task Force [SJ] Legal service [COMM] Directorate-General for Communication [IDEA] IDEA – Inspire, Debate, Engage and Accelerate Action [BUDG] Directorate-General for Budget
Cabinets of Commissioners [SG] Secretariat-General [SG-REFORM] Reform and Investment Task Force [SJ] Legal service [COMM] Directorate-General for Communication [IDEA] IDEA – Inspire, Debate, Engage and Accelerate Action
[SG] Secretariat-General [SG-REFORM] Reform and Investment Task Force [SJ] Legal service [COMM] Directorate-General for Communication [IDEA] IDEA – Inspire, Debate, Engage and Accelerate Action
[SG-REFORM] Reform and Investment Task Force [SJ] Legal service [COMM] Directorate-General for Communication [IDEA] IDEA – Inspire, Debate, Engage and Accelerate Action
[SJ] Legal service [COMM] Directorate-General for Communication [IDEA] IDEA – Inspire, Debate, Engage and Accelerate Action
[COMM] Directorate-General for Communication [IDEA] IDEA – Inspire, Debate, Engage and Accelerate Action
[IDEA] IDEA – Inspire, Debate, Engage and Accelerate Action
[BUDG] Directorate-General for Budget
[HR] Directorate-General for Human Resources and Security
[DIGIT] Directorate-General for Digital Services
[IAS] Internal Audit Service
[OLAF] European Anti-Fraud Office
[ECFIN] Directorate-General for Economic and Financial Affairs
[GROW] Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs
[DEFIS] Directorate-General for Defence Industry and Space
[COMP] Directorate-General for Competition
[EMPL] Directorate-General for Employment, Social Affairs and Inclusion
[AGRI] Directorate-General for Agriculture and Rural Development
[MOVE] Directorate-General for Mobility and Transport
[ENER] Directorate-General for Energy
[ENV] Directorate-General for Environment
[CLIMA] Directorate-General for Climate Action
[RTD] Directorate-General for Research and Innovation

[CNECT] Directorate-General for Communications Networks, Content and Technology

[JRC] Joint Research Centre

[MARE] Directorate-General for Maritime Affairs and Fisheries

[FISMA] Directorate-General for Financial Stability, Financial Services and Capital Markets Union

[REGIO] Directorate-General for Regional and Urban Policy

[TAXUD] Directorate-General for Taxation and Customs Union

[EAC] Directorate-General for Education, Youth, Sport and Culture

[SANTE] Directorate-General for Health and Food Safety

[HERA] Health Emergency Preparedness and Response Authority

[HOME] Directorate-General for Migration and Home Affairs

[JUST] Directorate-General for Justice and Consumers

[TRADE] Directorate-General for Trade and Economic Security

[ENEST] Directorate-General for Enlargement and Eastern Neighbourhood

[MENA] Directorate-General for the Middle East, North Africa and the Gulf

[INTPA] Directorate-General for International Partnerships

[ECHO] Directorate-General for European Civil Protection and Humanitarian Aid Operations (ECHO)

[ESTAT] Eurostat

[SCIC] Directorate-General for Interpretation

[DGT] Directorate-General for Translation

[OP] Publications Office of the European Union

[FPI] Service for Foreign Policy Instruments

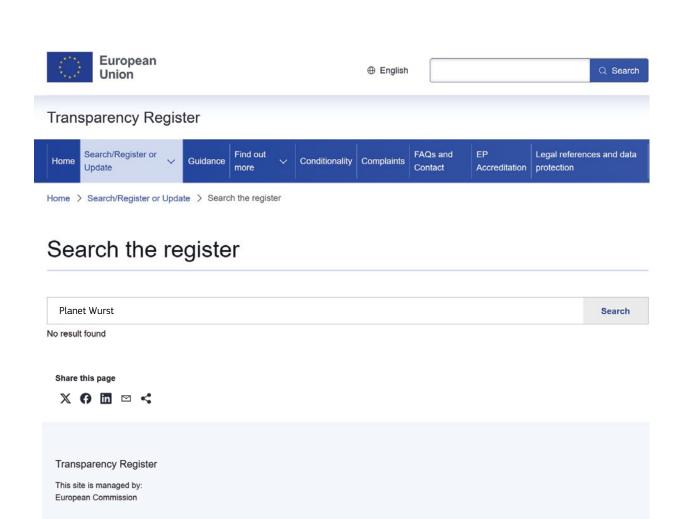
[PMO] Office for the Administration and Payment of Individual Entitlements

[OIB] Office for Infrastructure and Logistics in Brussels

[OIL] Office for Infrastructure and Logistics in Luxembourg

[EPSO] European Personnel Selection Office

[CDP-OSP] Staff Committee



Contact the EU

Call us 00 800 6 7 8 9 10 11

Use other telephone options

Write to us via our contact form

Meet us at one of the EU centres

Legal

Privacy policy

Legal notice

Cookies

Languages on our websites

European

Union

Discover more on europa.eu



