PDST
Professional Development Service for Teachers | An tSeirbhís um Fhorbairt Ghairmiúil do Mhúinteoirí

LC Economics

Introduction to Economics Seminar Day 2 Support Materials

Economics

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Introduction

This is an interactive booklet that forms part of a sequence of support materials and videos for the Introduction to Economics. Additional resources to support teaching and learning are also made available within this document.

Introduction to Economics Day 2- Padlet Wall

Economics Specification

Key Messages

- Economics is a subject for all and through its exploration students will be prepared and empowered to contribute to society and meet future challenges with confidence.

- Strand 1 is a unifying strand, the themes of which permeate all strands of the Specification and will be progressively developed over the course of senior cycle.

- The inquiry-based approach to teaching and learning cultivates students critical thinking skills in Economics by encouraging them to ask questions relating to the world around them and apply their learning in differentiated, collaborative, creative and innovative ways.

- The collection, organisation, analysis and interpretation of data allows students to hypothesise and critically evaluate economic concepts and theories, allowing them to form justifable opinions/conclusions around economic issues

Session 1

Realising Your Vision for Student Learning in Economics & Working with Data

Activity - Taking Stock

1. In light of your engagement with the suite of supports, how have you come closer to realising your vision for student learning in Economics?

What?	So What?	Now What?
...is the reality in my classroom? ...was I trying to achieve? ...actions did I take? ...was the response of my students? ...were the outcomes for the students? Myself? ...feelings did it evoke about teaching and learning of Economics? has changed about my thinking in relation to the teaching and learning of Economics	...does this mean for my students? ...does this mean for my practice in the future? other knowledge can I bring to the situation? ...broader issues arise from the situation?	...do I need to do in order to move the students closer to achieving the learning outcomes in line with the vision and objectives set out? ...broader issues need to be considered if my approach is to be successful? ...might be the consequences of this action?

Reference: Adapted from Rolfe, G., Freshwater, D.,Jasper, M. (2001) Critical reflection in nursing and the helping professions: a user's guide. Basingstoke: Palgrave Macmillan

2. Consider what unexpected learning has emerged for you?

Activity

The Young Economist of the Year provides an opportunity for students (first to sixth year) to engage in an inquiry-based approach to exploring core economic concepts that are both topical and of relevance to the world in which they live. Students are encouraged to integrate the use of data and information, digital media with quality investigation and economic analysis and present their findings and conclusions in a variety of creative ways.

Read the extract provided on the Introduction to Economics Day 2 Padlet Wall and consider the following questions.

Consider the following questions as you view the sample YEOTY project provided on the padlet under YEOTY

Which learning outcomes are reflected in this piece of work?

Where has the student shown evidence of thorough engagement with the topic?

How has the student shown evidence of inquiry?

How has the student shown concrete evidence of knowledge and understanding of the facts and revealed insights of their learning?

How have they demonstrated their ability to research, select, organise and process information and data from a variety of sources for relevance and reliability?

What data sources could be drawn upon to support an inquiry such as this?
What evidence exists of critical and creative thinking?

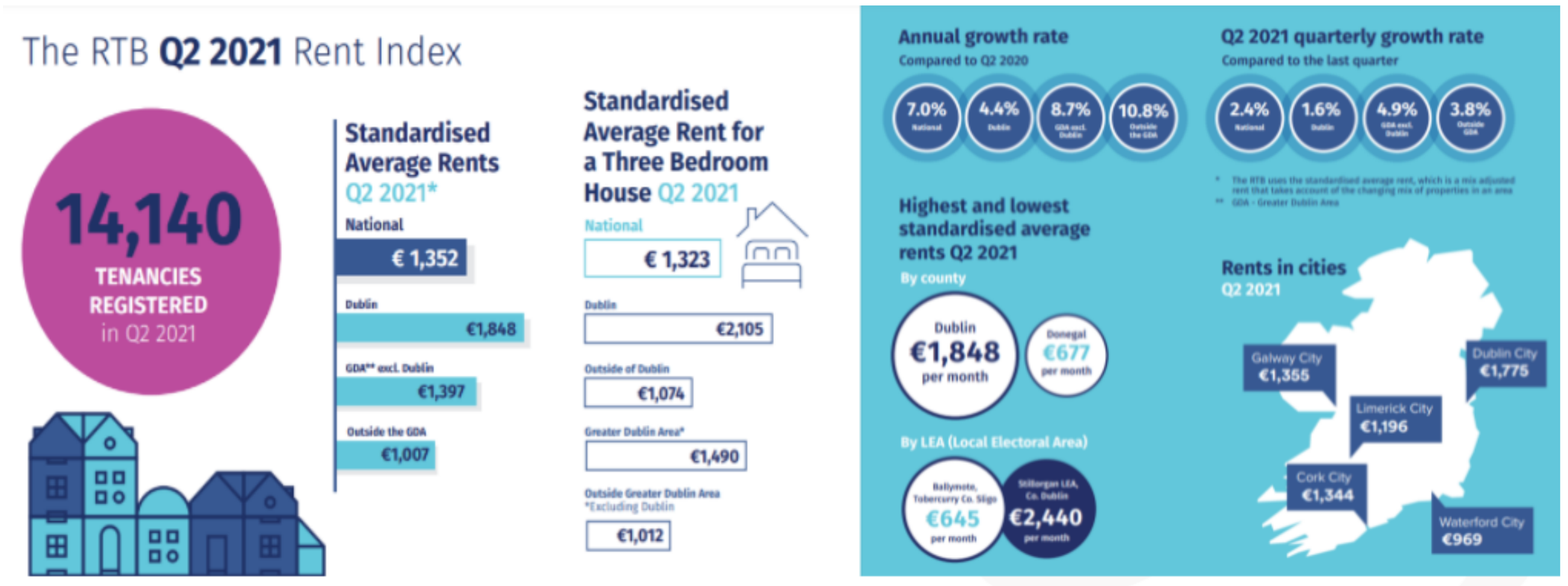
Economics

Session 2

Key Skills & Rich Inquiry in Economics

Key Skill	Elements
INFORMATION PROCESSING	• Accessing information from a range of sources • Selecting and discriminating between sources based on their reliability and suitability for purpose • Recording, organising, summarising and integrating information • Presenting information using a range of information and communication technologies
CRITICAL AND CREATIVE THINKING	• Examining patterns and relationships, classifying and ordering information • Analysing and making good arguments, challenging assumptions • Hypothesising and making predictions, examining evidence and reaching conclusions • Identifying and analysing problems and decisions, exploring options and alternatives, solving problems and evaluating outcomes • Thinking imaginatively, actively seeking out new points of view, problems and/or solutions, being innovative and taking risks
COMMUNICATING	• Analysing and interpreting texts and other forms of communication • Expressing opinions, speculating, discussing, reasoning and engaging in debate and argument • Engaging in dialogue, listening attentively and eliciting opinions, views and emotions • Composing and performing in a variety of ways • Presenting using a variety of media
WORKING WITH OTHERS	• Working with others in a variety of contexts with different goals and purposes • Identifying, evaluating and achieving collective goals • Identifying responsibilities in a group and establishing practices associated with different roles in a group (e.g., leader, team member) • Developing good relationships with others and a sense of wellbeing in a group • Acknowledging individual differences, negotiating and resolving conflicts • Checking progress, reviewing the work of the group and personally reflecting on one's own contribution
BEING PERSONALLY EFFECTIVE	• Being able to appraise oneself, evaluate one's own performance, receive and respond to feedback • Identifying, evaluating and achieving personal goals, including developing and evaluating actions plans • Developing personal qualities that help in new and difficult situations, such as taking initiatives, being flexible and being able to persevere when difficulties arise • Becoming confident and being able to assert oneself as a person

Rent Prices Q3 2021



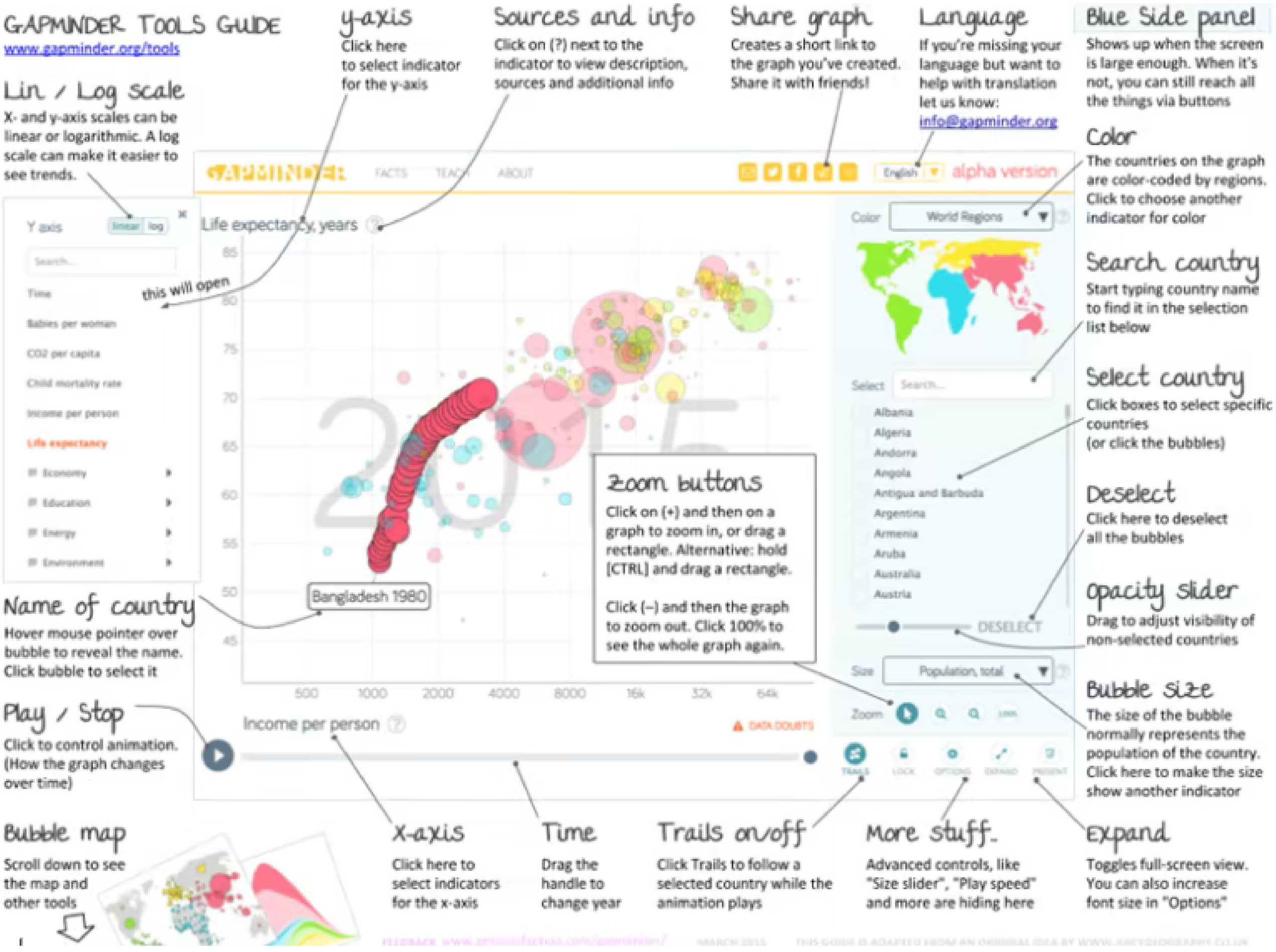
Source: Rent Tenancy Board (RTB) Rent Index

Activity - Key Skills

Consider the infographic above. Select a learning outcome from Strand 2 and describe how elements of Senior Cycle key skills could be developed by students while working with that data source.

Information Processing	
Critical and creative thinking	
Communicating	
Working with others	
Being personally effective	

Click here to view Video - Utilising an Inquiry Approach



Non-digital Sources

Climate Action Plan 2021

The agri-food sector is one of Ireland's largest industries. In 2020, it accounted for almost 7% of modified gross national income; 10% of exports in value terms; approximately 164,400 jobs representing 7.1% of total employment; and €14 billion of exports.

The historical and economic importance of agriculture relative to other industries means that the sector is the single largest contributor to overall emissions, at 35.2%, representing over one third of Ireland's total greenhouse gas emissions (GHGs). In 2018, GHG emissions from agriculture were 14% above 1990 levels, mainly driven by an increase in methane emissions from enteric fermentation (the animal digestive process).

The high proportion of national emissions represented by agriculture means that for Ireland to meet its overall emissions reduction targets, along with all other sectors, the agriculture sector must make a positive contribution to combating climate change and supporting the transition to a climate resilient, biodiversity rich and climate neutral economy and society no later than 2050. Additionally, as other sectors decarbonise, the share of the agriculture contribution to the national emissions profile will increase.

In 2018, the sector produced 22.03 MtCO2eq. (8% more than in 2005) driven mainly by an increase in bovine numbers and milk output, following the ending of the EU milk quota system in 2015. However, agricultural emissions decreased by 4% in 2019 largely due to a decrease in fertiliser use (-10.1%) and liming (-25.4%). If recent trends continue, with dairy herds increasing, there is a risk that emissions will grow as abatement and efficiency efforts are outstripped by herd growth.

Irish agriculture is dominated by livestock grazing outdoors, a pasture-based food system, which compares favourably to systems where animals are housed on intensive grain-based production systems. The sector has a reputation for high quality and sustainably produced food, and it is important that we maintain that reputation, in a world with increasing consumer demands for credible evidence that food and ingredients are produced sustainably.

However, the sector's relationship with key environmental indicators has been trending in the wrong direction. Agricultural practices have been identified by the Environmental Protection Agency as significantly contributing to the decline in water quality nationally, with other sectors also contributing to this trend. The agriculture sector is also responsible for over 99% of national ammonia emissions. Furthermore, impacts from agricultural activities are reported as having a negative effect on a wide range of species, including fish, molluscs, terrestrial mammals and vascular plants. The implementation of measures to mitigate agricultural emissions (such as use of stabilised urea fertilisers) has commenced. Continued support and uptake of such measures will be critical to ensure a reversal in environmental metrics to meet our climate ambitions and protect the sector's strong international reputation.

(Department of the Environment, Climate and Communications 2021, Climate Action Plan 2021 Securing Our Future, available on https://www.gov.ie/en/publication/6223e-climate-action-plan-2021/ accessed on Dec 3rd 2021)

National Farm Survey 2020 Sustainability Report

Executive Summary

This report provides the latest available information on farm sustainability performance in Ireland, based on detailed analysis of data collected through the Teagasc National Farm Survey. Economic, Social and Environmental Sustainability are measured for Dairy, Cattle, Sheep and Tillage farms in 2020. The report also includes time series results extending back into the last decade, allowing an assessment of how farm sustainability has changed over time.

Economic sustainability

·Consistent with the established trend, Dairy remains the powerhouse. Average economic returns in Dairy tend to be multiples of those in the other farm systems

·When allowance is made for the amount of labour required in different systems and income is expressed on a per labour unit basis, on average Dairy and Tillage both considerably outperform the drystock sectors

·For 2020, the economic performance of the average sheep farm improved, reflecting the higher lamb prices in this sector

Social sustainability

·Again reflecting established trends, Dairy continues to have stronger social sustainability performance relative to other farm systems. Dairy tends to have a lower isolation risk, with fewer households having a high age profile in comparison with other farm systems.

·However, in terms of labour input, on average the main dairy farm operator works significantly more hours per year than the farm operator in the other farm systems. Even when time spent working off farm is combined with time spent working on-farm, the labour input of dairy farm operators tends to exceed that of other farm systems.

Environmental sustainability

Green-house gas emissions

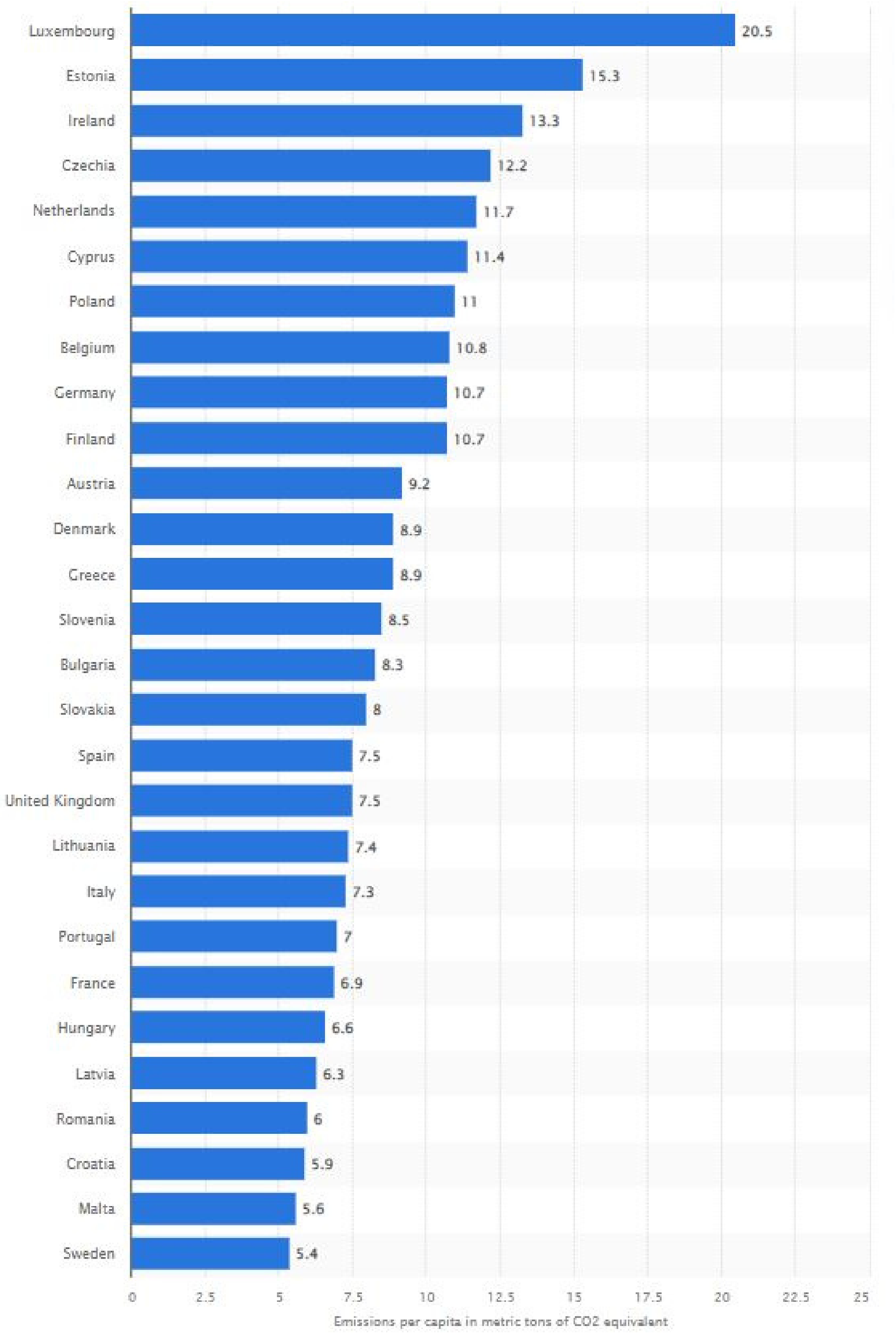
·Dairy: Total farm GHG emissions on the average dairy farm increased in 2020, largely due to an increase in the average herd size. However, GHG emissions per hectare on dairy farms remained relatively stable, as the average dairy farm area increased. The GHG emissions intensity of milk production (CO_2 per kilogramme of Fat and Protein Corrected Milk) improved. Effectively this means that the average kilogramme of milk was produced with a lower carbon footprint. However, this improvement in GHG emissions intensity was offset by a higher volume of milk produced on the back of a larger average herd size. Hence, farm level GHG emissions increased on dairy farms in 2020.

·Non-Dairy Systems: Farm level GHG emissions on sheep and tillage farms remained stable in 2020. Farm level emissions on cattle farms declined slightly. Per hectare emissions generally remained stable across these systems.

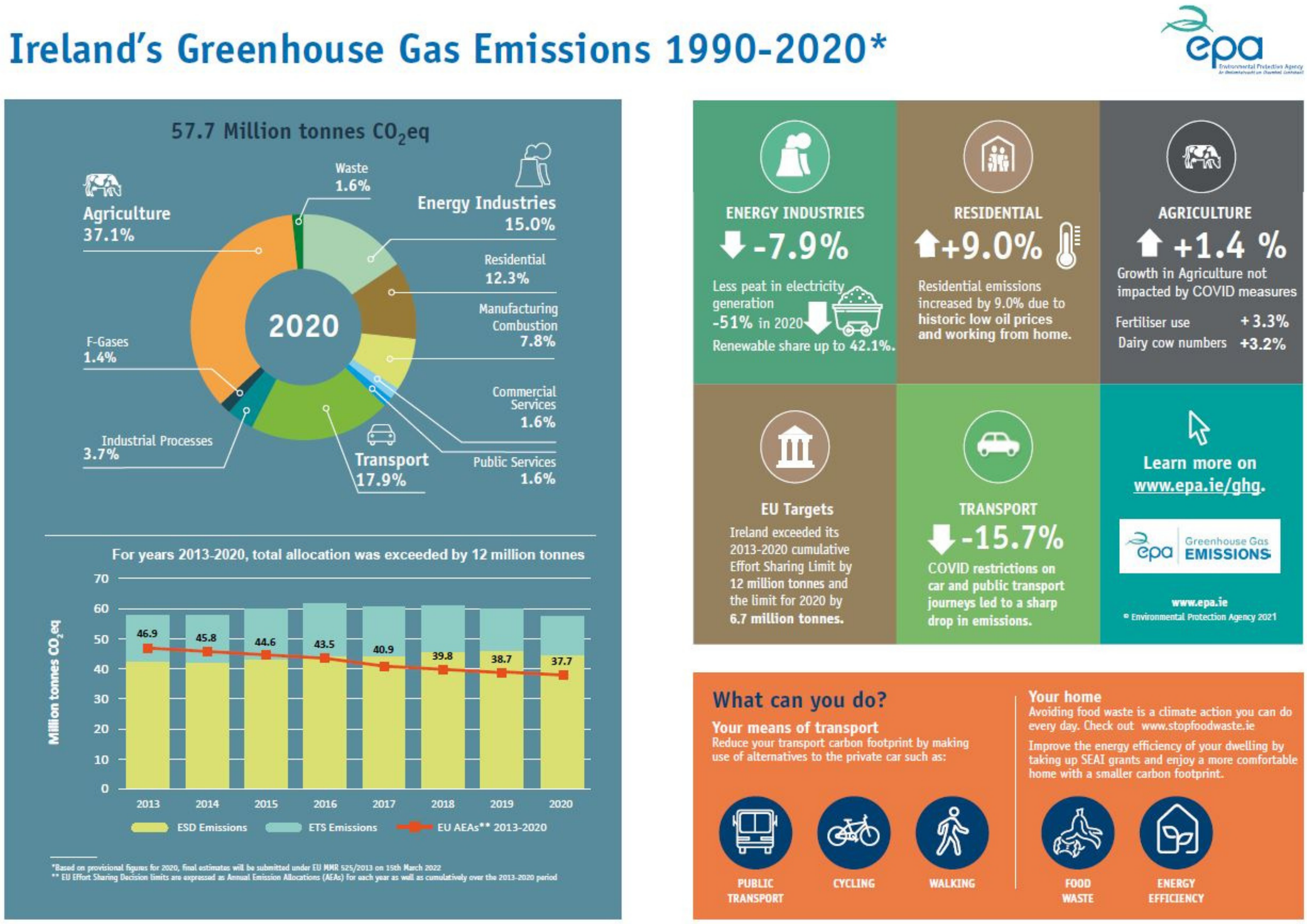
·Agriculture as a whole: The decline in cattle GHG emissions offset the increases in dairy farm emissions.

(Teagasc 2020, National Farm Survey 2020 Sustainability Report, available on https://www.teagasc.ie/media/website/publications/2021/2020-Sustainability-Report.pdf accessed Dec 3rd 2021)

EU C02 per capita by country 2018



(Source: https://www.statista.com/statistics/986392/co2-emissions-per-cap-by-country-eu/ accessed Dec 7th 2021)



Source: https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/GHG-Inventory-prov-CENTREFOLD-2020_final.pdf
Accessed Dec 7th 2021

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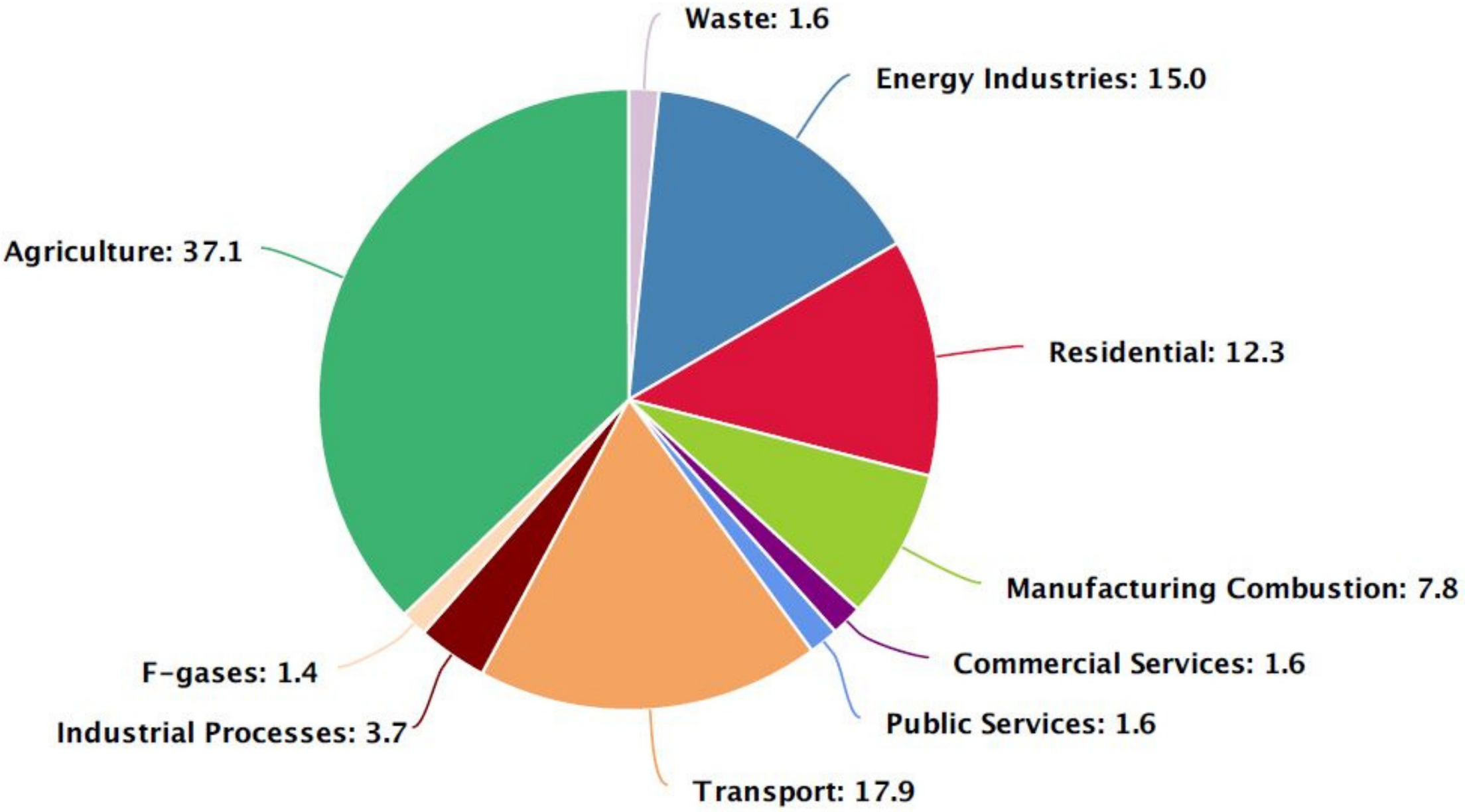
Greenhouse gas emissions share by sector in 2020



Source: https://www.epa.ie/our-services/monitoring--assessment/climate-change/ghg/latest-emissions-data/
Accessed Dec 7th 2021

Session 3

Competencies for Economics

Question 1:
Drawing on your experience of the rich task from session two earlier in the seminar, identify and discuss what knowledge, attitudes and values students will need to develop in order to engage with economic data and information to form justified opinions and draw conclusions?

Question 2:
How can we as teachers support that development in class?

Question 3:
Using the information on Bloom's taxonomy and the question stems shown on the next two pages, please select a learning outcome along with a data source which has been added to the padlet wall and in your groups develop two to three questions which could be used in class which will challenge the students critical thinking skills. When this has been completed consider the following

- What makes these questions effective?
- How can they be used to support key skill development?
- In what ways will these questions be used to support inclusion for all students in the class?

Question 4:
Consider the YEOTY project from earlier today and suggest how this student has demonstrated competency in these areas.

Question 5:
Consider what guidelines you can give your students when conducting research during their study of economics based on your examination of the rubric.

BLOOM'S TAXONOMY : More extended examples of skills, cue words and question stems

Competence	Skills Demonstrated			*Question Cues:*
Knowledge	• Observation and recall of information • Knowledge of dates, events, places/major ideas • Mastery of subject matter • Factual recall			list, define, tell, describe, identify, show, label, collect, examine, tabulate, quote, name, who, when, where, etc
Knowledge Question stems:	Tell me about …? Can you list …? How many …?	Where did …? Who are the …? Who said …?	When did …? Who wrote …? When was …?	What date did …? What is …? Where can you find …?
Comprehension (understanding)	• Understanding information and grasp meaning • Translate knowledge into new context • Interpret facts, compare, contrast, order, group, infer causes and predict likely consequences • Suggest connections			summarise, describe, extend, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, extend.
Comprehension Question stems:	Can you list the sequence …? What happened after …? How do you know …?		Who can explain …? What is the difference between …? How would you describe …?	
Application	• Use information • Use methods, concepts, theories in new situations • Solve problems using required skills or Knowledge • Visualise actions in a real life/applied situation			apply, demonstrate, change, calculate, complete, classify, illustrate, show, solve, test, examine, modify, relate, do, make, construct, discover, manufacture, make.
Application Question stems:	How could this have happened in…? What factors would you change if …? How would you react when …?		What would you do if …? What questions would you ask if …? What would you need if …?	
Analysis	• Seeing patterns & organization of parts • Recognition of hidden meanings • Identification of components • systematically consider data sets			analyse, separate, order, explain, connect, classify, arrange, divide, compare, probe, explain, deduct, infer.
Analysis Question stems:	How was this similar / different to …? What was the problem with …? What evidence proves …?		Why did … precede/follow …? What are some of the motives behind …? Do you think that …?	
Synthesis	• Use old ideas to create new ones • Generalize from given facts • Relate knowledge from several areas • Predict and draw conclusions • Redefine what is known • Reconceptualise for new situations			combine, integrate, modify, re-arrange, substitute, plan, create, design, invent, what if?, speculate, compose, formulate, prepare, rewrite, generalise, propose, model.
Synthesis Question stems:	How would you design … for …? What would happen if …?		What if we found out that …? Could you see a possible solution to …?	
Evaluation	• Compare and discriminate between ideas • Assess value of theories, presentations • Make choices based on reasoned argument • Verify value of evidence • Recognise subjectivity • Balancing evidence using criteria			assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, discriminate, support, conclude, compare, appraise, summarise.
Evaluation Question stems:	Do you believe …? How would you choose/assess …? What would you judge …?		Do you think … is a good or bad thing? How effective is/are …? On balance, what is the argument for…?	
Creativity	• Applies all of the previous categories to inform thinking and actions • Identifies and solves problems • Thinks independently and in new ways, able to originate and innovate • Collaborate as part of a team or be independent • Can empathise and shift perspective as needed			design, imagine, conceive, innovate, hypothesise, investigate, produce, invent, experiment, craft, fashion, generate, inspire, excite, compose, vision, wrought,
Creativity Question stems:	How would you respond to …? How could you collaborate to …?		Can you imagine how …? If you had to find a new way to …?	

Adapted from: Bloom, B.S. (Ed.) (1956) Taxonomy of educational objectives:
The classification of educational goals: Handbook I, cognitive domain. New York; Toronto: Longmans, Green.

Bloom's Taxonomy to support Critical Thinking

Suggested Verbs to Use to define the level of thinking and active challenge for Learning

1. KNOWLEDGE **Identification and recall of information**	Define Fill in the blank List identify	Label Locate Match Memorise	Name Recall Spell	State Tell Underline
	Who ……..? What ……..? Where ……..? When ……..?		Who ……..? What ……..? Where ……..? When ……..?	
2. COMPREHENSION **Organisation and selection of facts and ideas**	Convert Describe Explain	Interpret Paraphrase Put in order	Restate Retell in your own words Rewrite	Summarise Trace Translate
	Re-tell …….. in your own words. What is the main idea of ……..?		What difference exists between …….. ? Can you write a brief outline?	
3. APPLICATION **Use of facts, rules and principles**	Apply Compute Conclude Construct	Demonstrate Determine Draw Find Out	Give an example Illustrate Make Operate	Show Solve State a rule or principle Use
	How is …….. an examples of ……..? How is …….. repeated to ……..? How is …….. significant?		Do you know of another instance where….? Could this have happened to ……..?	
4. ANALYSIS **Separating a whole into component parts**	Analyse Classify Categorise Compare	Contrast Debate Deduct Determine the factors	Diagrams Differentiate Dissect Distinguish	Examine Infer Specify
	What are the parts or features of……..? Classify …….. according to …….. Outline/diagram/web/map ……..		How does …….. compare/contrast with ……..? What evidence can you present for ……..?	
5. SYNTHESIS **Combining ideas to form a new whole**	Change Combine Compose Construct Create Design	Find an unusual way Formulate Generate Invent Originate Plan	Predict Pretend Produce Rearrange Reorganise Reconstruct	Revise Suggest Suppose Visualise Write
	What would you predict/infer from……..? What ideas can you add to ……..? How would you create/design a new……?		What solutions would you suggest for……..? What might happen if you combined…….. with ……..?	
6. EVALUATION **Developing opinions, judgements or decisions**	Appraise Choose Compare Conclude	Decide Defend Evaluate Give your opinion	Judge Justify Prioritise Rank	Rate Select Support Value
	Do you agree that? Explain……..? What do you think about……..? What is most important?		Prioritise……..according to ……..? How would you decide about……..? What criteria would you use to assess……..?	

Find at: http://www.flickr.com/photos/vblibrary/4576825411/

Websites and Resources

PDST Resources:

- Scoilnet Economics Page
  - www.scoilnet.ie/pdst/economics

- PDST Website Economics Page
  - www.pdst.ie/sc/economics

- Working with online Sources of Data and Information
  - www.scoilnet.ie/uploads/resources/37268/37070.pdf
  -

- Working with Data and Information
  - https://www.scoilnet.ie/uploads/resources/37267/37069.pdf

- Post-Primary Literacy Resources for Teachers
  - http://www.jcsp.ie/resources/c/10/497/Post%20Primary%20Literacy%20Resource%20for%20Teachers.pdf

- An Integrated Approach to Learning, Teaching & Assessment Post Primary Resource
  - https://www.scoilnet.ie/uploads/resources/29422/29158.pdf

- Graphic Organisers in Teaching and Learning Post Primary Resource
  - https://pdst.ie/sites/default/files/Graphic%20Organiser.pdf

- Active Learning Methodologies
  - https://pdst.ie/sites/default/files/teaching%20toolkit%20booklet%20without%20keyskills.pdf

Websites and Resources

- Economic outlook - Economic Developments during Covid-19 and beyond
  - https://www.gov.ie/en/press-release/07c73-minister-donohoe-publishes-stability-programme-update-2021/

- Organisation for Economic Co-operation and Development (OECD)- Irelands Economic Snapshot
  - https://www.oecd.org/economy/ireland-economic-snapshot/

- The Economic Social Research Institute -ESRI Quarterly Economic Commentary Spring 2021
  - https://www.youtube.com/watch?v=hKqt2fUgDq0

- Curriculum Online
  - www.curriculumonline.ie

- Central Bank of Ireland - Governors Blog
  - https://www.centralbank.ie/news-media/blog

- Economics Blogs - Top 100 Economics Blogs
  - https://www.intelligenteconomist.com/economics-blogs/

- European Central Bank - Monetary Policy
  - https://www.ecb.europa.eu/explainers/topic/html/index.en.html

- Research Based Policy Analysis and Commentary from Leading economists
  - https://voxeu.org/

- Economic Research Federal Reserve Bank - (FRED)
  - https://fred.stlouisfed.org/

Websites and Resources

Government Revenue and Expenditure:

- https://whereyourmoneygoes.gov.ie/en/
- http://localauthorityfinances.com/
- https://www.cso.ie/en/statistics/governmentaccounts/governmentincomeandexpenditurea/

NCCA Resources:

- NCCA Focus on Learning
  - https://ncca.ie/en/junior-cycle/assessment-and-reporting/focus-on-learning/
- NCCA Senior Cycle Key Skills Framework
  - https://ncca.ie/media/3380/ks_framework.pdf
- NCCA Focus on Learning Toolkits
  - https://ncca.ie/en/junior-cycle/assessment-and-reporting/focus-on-learning

NCSE Resources:

- NCSE Website
  - https://ncse.ie/
- NCSE Post Primary Resources
  - https://ncse.ie/teacher-post-primary-general-support-for-learning

Websites and Resources

- Promoting the use of Inquiry Based Learning
  - https://www.youtube.com/watch?v=u84ZsS6niPc

- Creating Inclusive Environments in Education - Universal Design for Learning
  - https://www.ahead.ie/udl

- Teaching Council Research Library -Using Research in our schools - Inclusion
  - https://www.teachingcouncil.ie/website/en/research-croi-/using-research-in-our-school/inclusion/

- Critical and Creative thinking Skills, Bill Lucas
  - http://www.oecd.org/education/ceri/5k4dp59msdwk.pdf