



ENERGee Watch

Data display, dissemination and validation by
local authorities

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Rhône-Alpes**
Énergie Environnement



ENERGee Watch has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 752126.

Course structure – as per handbook



Topic 1: What determines effective communication of data?

Topic 2: Identifying the information needs of the end-users

Topic 3: Manipulating and presenting data

Topic 4: Implementing data display tools

Topic 5: TerriSTORY®, a deeper insight

Topic 6: Data dissemination

Over to you...



Q: What does this topic evoke to you?

Join by Web



- 1 Go to **PollEv.com**
- 2 Enter **MATTHIEUDENOUX407**
- 3 Respond to activity

What does this topic evoke to you?

impactful • data
communication
understanding effective



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Topic 1: What determines effective communication of data?



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What to consider before collecting and presenting data...



- The **need** for the data
- **Accessibility** of data sets
 - Free of charge or paid for?
 - Readily available or a lot of time required?
 - Publishable or private data?
- What other **stakeholders** are concerned by the data?
- Who is the **target** audience?
- Are there any data **regulations** in place?

How do we ensure data is received effectively?

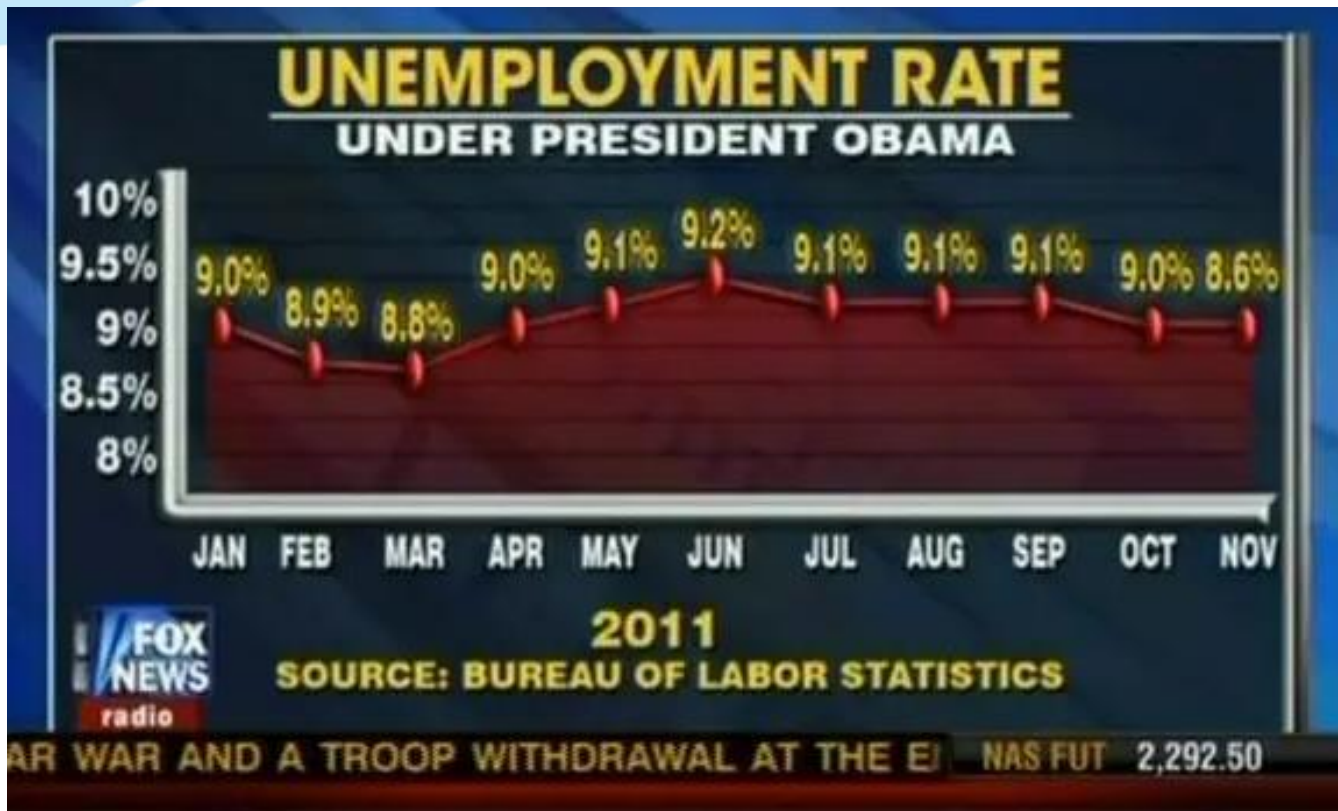


- There are many examples of how data can be poorly presented
 - Sometimes by accident, sometimes intentional
- Knowing the audience is key
 - **intended for academics or experts?**
it may be *complex*
 - **for general public?**
it must be clear and concise

Intentionally poor data presentation



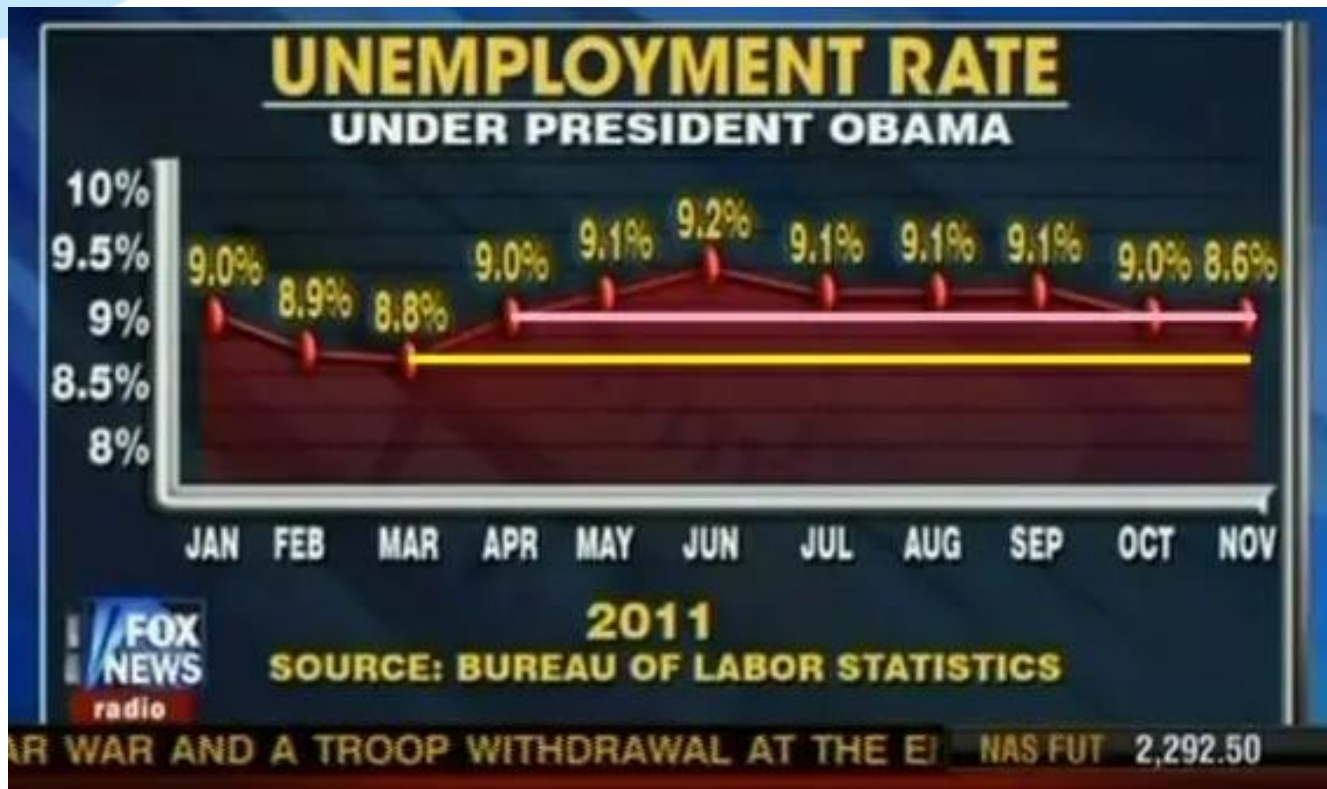
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Intentionally poor data presentation

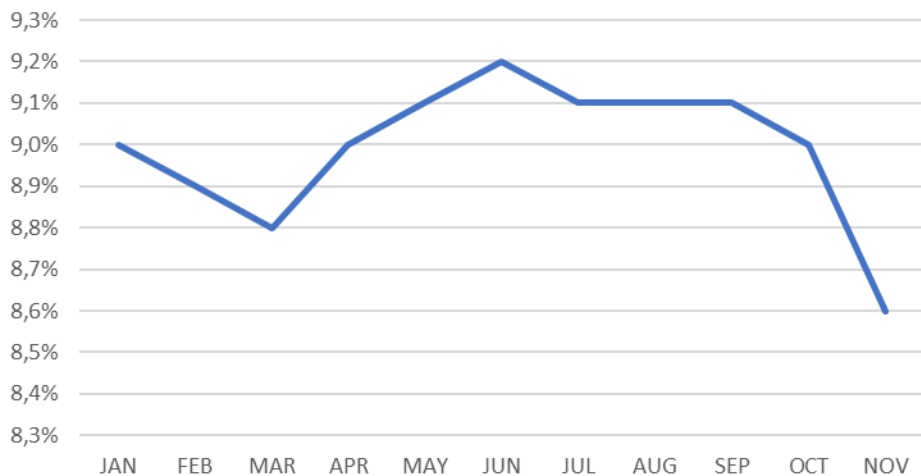


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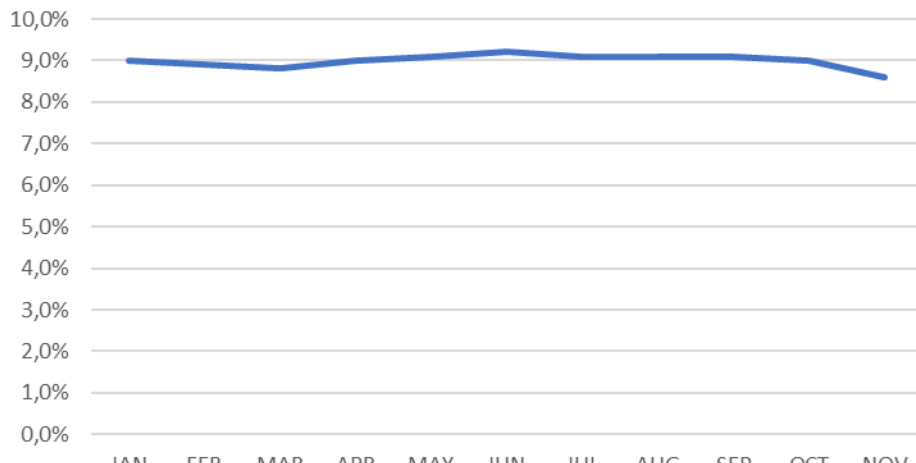


Intentionally poor data presentation

Unemployment rate, %



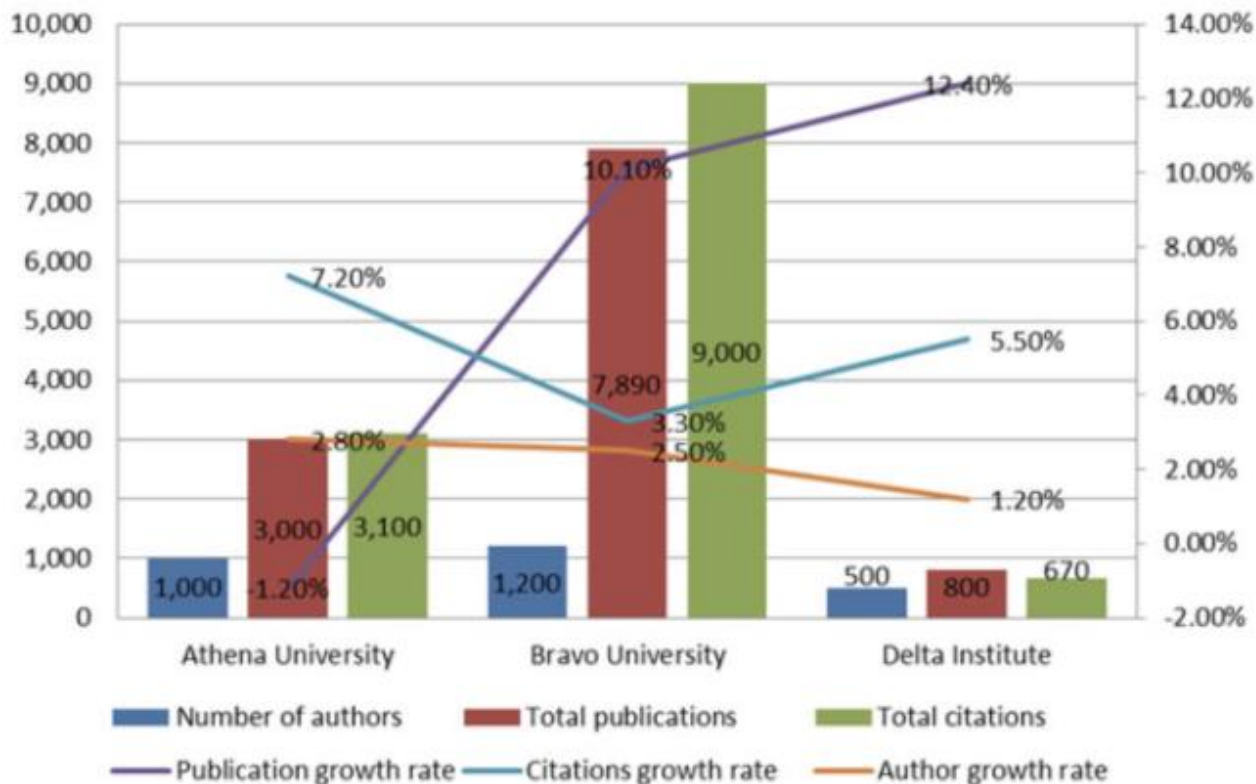
Unemployment rate, %



Bad examples of data visualisation



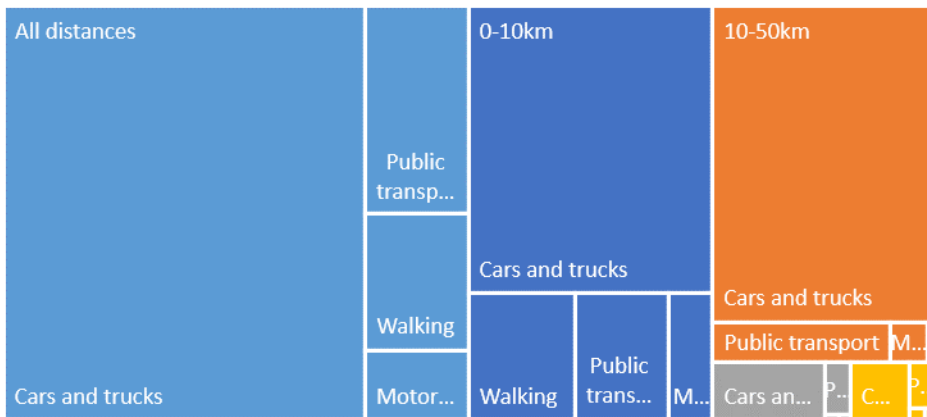
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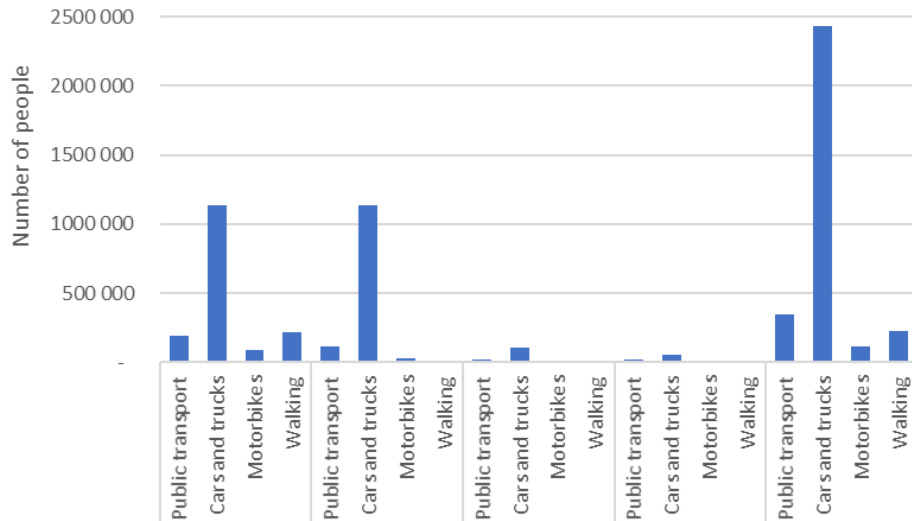
Other examples of data visualisation

How far commuters travel and how

■ 0-10km
 ■ 10-50km
 ■ 50-100km
 ■ > 100km
 ■ All distances



How far commuters travel, and how





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Topic 2: Identifying the information needs of the end-users



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Definitions



- **Stakeholder:** anyone, or organisation, concerned by, invested in or impacted by the collection, processing or distribution of information
ex: energy companies, city or region employees or representative...
- **End-user:** anyone, or organisation, that **finds a use** for the information produced and communicated (and who are not *necessarily specialists* in the subject)
- As a project is planned or launched, the identification of **stakeholders and end-users** should be a priority (like when starting a business)

What information is important?



Identifying end-users

- To whom regulations/political objectives apply
- Questionnaires + Surveys + Meetings
- Who are the instigators of projects?
- Other existing projects

Identifying why they need the information

- International objectives (e.g. SECAP / PCAET)
- National/Local initiatives (TEPOS-CV in AURA)
- Planned or ongoing projects
- *In AURA: Lots of data solicitations, helps us identify needs*

Any examples? (Top-down or bottom-up)

An example in AURA...



In AURA, 2013, **climate objectives** were introduced by the region, requiring the regional government to **track progress** among territories.

Multiple actors involved to **identify key climate indicators** (*Tourism, Agriculture and Water*) importance to the region (those most at risk economically)

Identified the **contributors** to create these indicators through a working group

In total, this project took around a year

An example in AURA...



Started out with a large seminar:

- 15 organisations, across different sectors
 - Local government, associations, tourism agencies, climatologists etc.
- Multiple problems identified and discussed in these sectors
- Followed the “Impact Chain” method of identifying climate risks*

Once all potential issues were identified, followed a 2nd working group which

- Identified impacts of each issue
- Determined the priority (1-5) for each actor and territory involved
- Identified the availability of data



An example in AURA...



3rd working group:

- Cross-theme discussions to ensure the indicators identified were useful
- Produced the most important indicators with available data
 - Making sure to define them well (e.g. average temperature change),

4th working group:

- Validation of indicators
- Development of analysis reports for each indicator for different types of territory
 - Mountainous
 - Agriculture
 - Vineyards
 - On the coast (not applicable in AURA)

Working groups each year to update and add any further indicators

An example in AURA...



2 years later, went to see the territories to see how indicators were used

Feedback :

- “Useful, but too difficult to find relevant information for my territory”

Decided to create territory specific analysis reports on the indicators that concerned each territory

Has been a great success, reports now automated, many more indicators for a more complete analysis

All thanks to many years of work, and most of all, listening



A more concrete example...



Mobility indicators :

- Many data
- What are the needs from the territories?
 - Accessibility to services and jobs!
- Work has been done (RESILITERRE project)
- Discussions with territories
- Working group on mobility (still meeting to this day!)

A more concrete example...

Simulateur d'impacts mobilité

Objectif : donner les ordres de grandeur d'impacts associés aux principaux leviers de la mobilité

Leviers pour « moins se déplacer » ↻

❖ Leviers de réduction – trajets domicile-travail

Réduire le nombre d'actifs devant se déplacer ?



Réduire le nombre de km parcourus par trajet ?

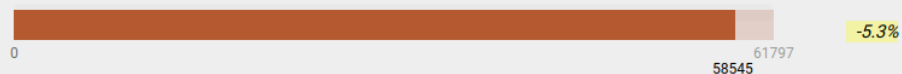
❖ Leviers de réduction – déplacements personnels hors travail

Réduire le nombre de km à parcourir pour accéder aux services & loisirs ?

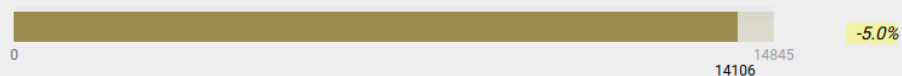
❖ Leviers de réduction – transport de marchandise

Réduire le nombre de km pour le transport de marchandise ?

Impact énergétique - transport routier (en GWh) :



Impact carbone - transport routier (en ktCO2e) :



Impact facture énergétique - transport routier (en k€) :

Prêt pour construire votre plan d'actions « mobilité » ?

Retour au tableau de bord Mobilité

Just to conclude this quick section



Importance of partnership:

- Find the most inspiring partners
- Find the right databases or data sources
- Find the most passionate and voluntary end-users



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Topic 3: Data manipulation and presentation in an effective manner



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Over to you...



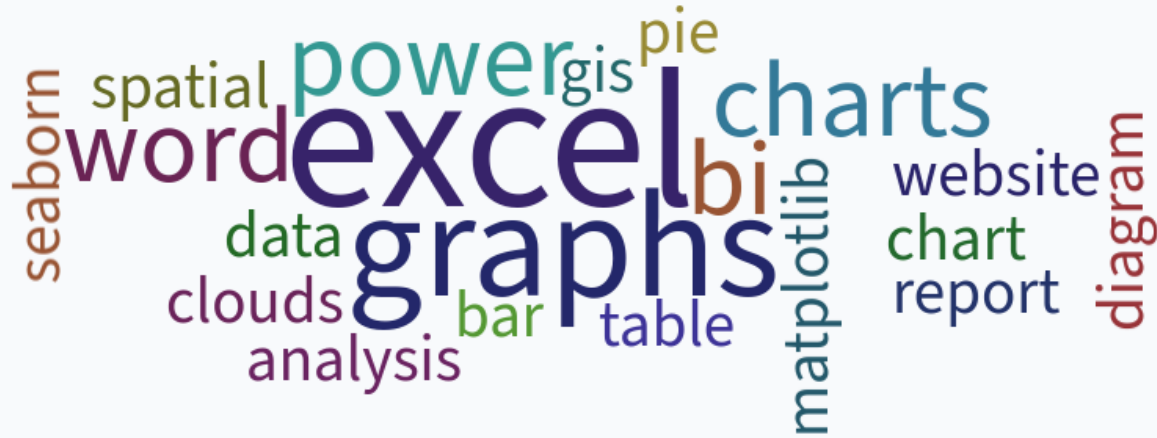
Q: Which data representation forms do you mainly use?

Join by Web



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- 3 Respond to activity

Which data representation forms do you mainly use?



Different modes of presenting information



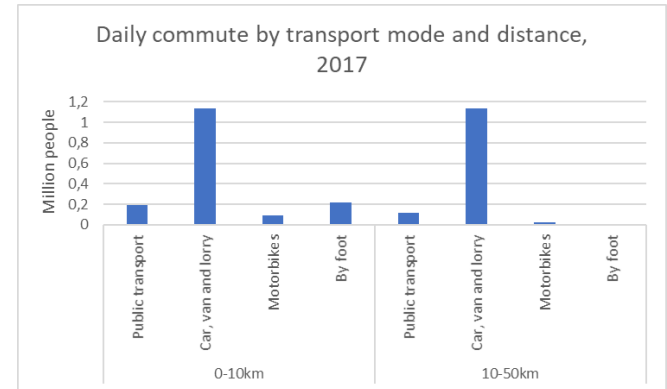
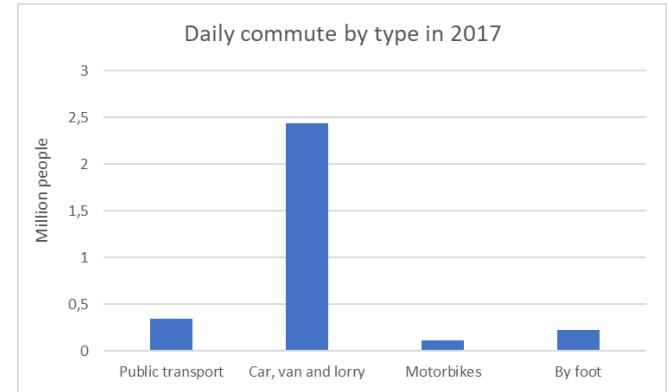
- Simple charts
- Pie, area and volume charts
- Combined charts
- Interactive charts
- Data points & data tables
- Sankey diagrams
- Static data mapping
- Dynamic time series data
- Textual representations

Simple charts

- Bar, line, scatter
 - Normally require simple datasets
 - For presenting linear trends of few criteria
-
- + Easy to understand
 - + Easy to implement
 - + Don't require much expertise
-
- Can oversimplify complex messages
 - Don't provide much analysis



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Taking an example...



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How much impact does food have?

Proportion of total greenhouse gas emissions from food

A quarter of global emissions come from **food**

Food
26%

Other greenhouse
gas emissions 74%

More than half of food emissions come from **animal products**

Animal products
58%

Other food
42%

Half of all farmed animal emissions come from **beef and lamb**

Beef & lamb
50%



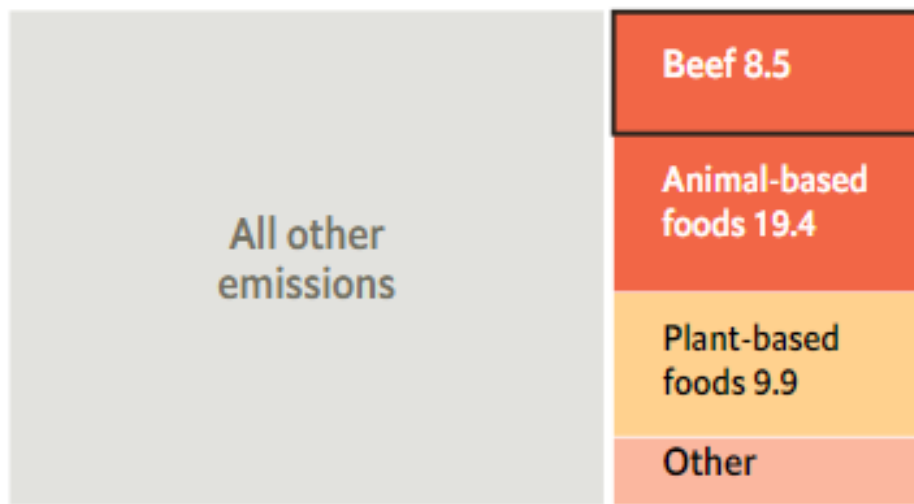
Other animal
products 50%

Adding important detail...

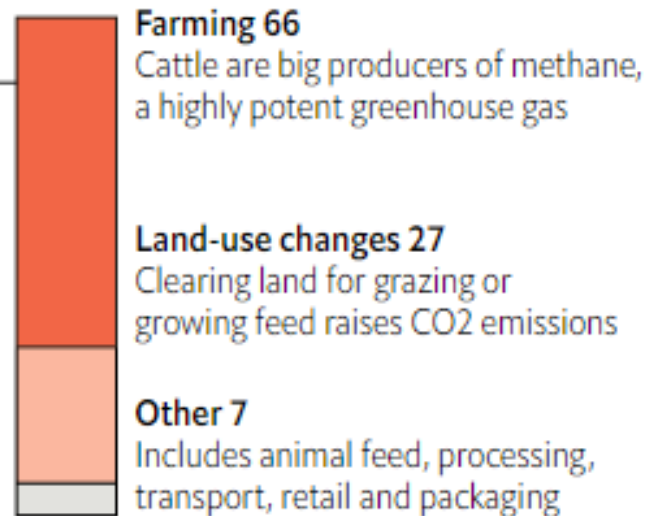


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Share of global emissions 2015, %



Emissions from beef production By type, %



Source: *The Economist*, "Treating beef like coal would make a big dent in greenhouse-gas emissions"

Making it more impactful...



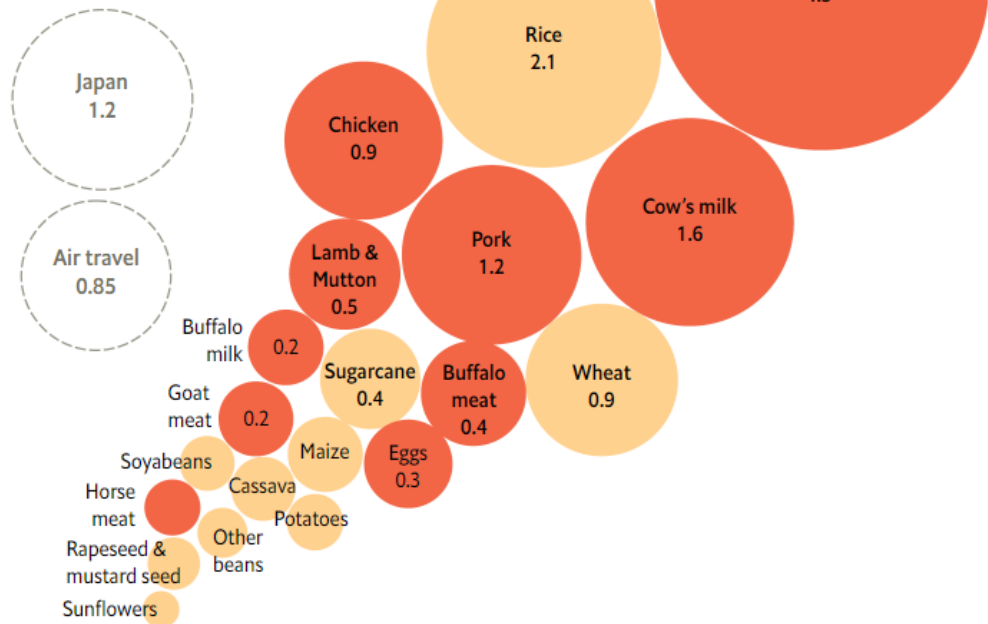
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Annual emissions, CO₂-equivalent gigatonnes

Ten biggest sources in each category, 2010

● Animal-based ● Plant-based

Compared with total emissions from



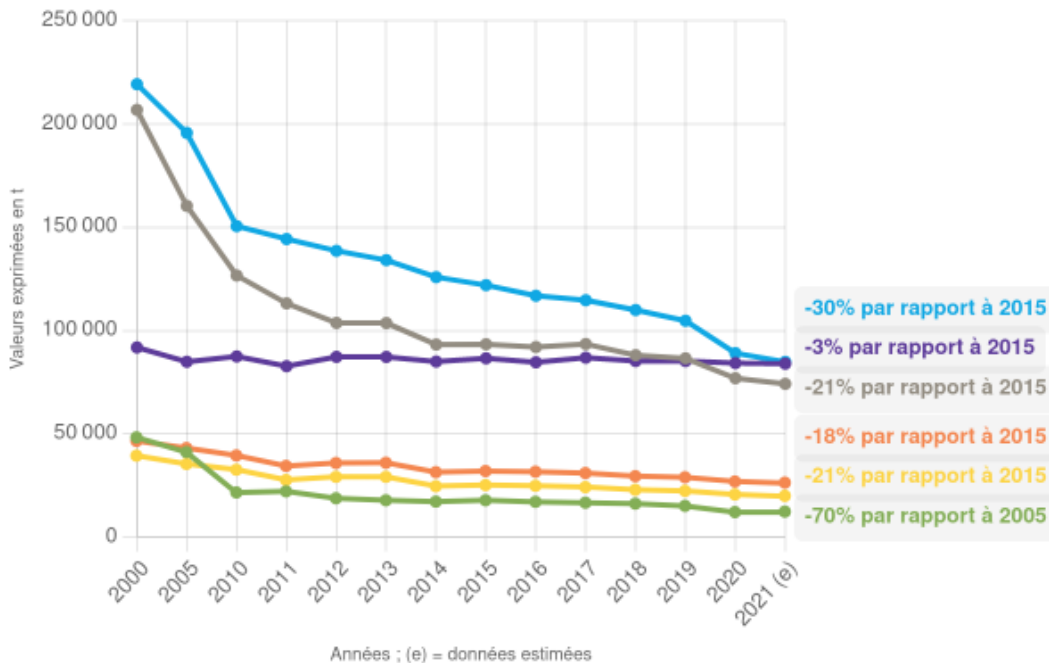
Source: *The Economist*, "Treating beef like coal would make a big dent in greenhouse-gas emissions"

Making it more impactful...



RGee Watch

Polluants atmosphériques (2021)



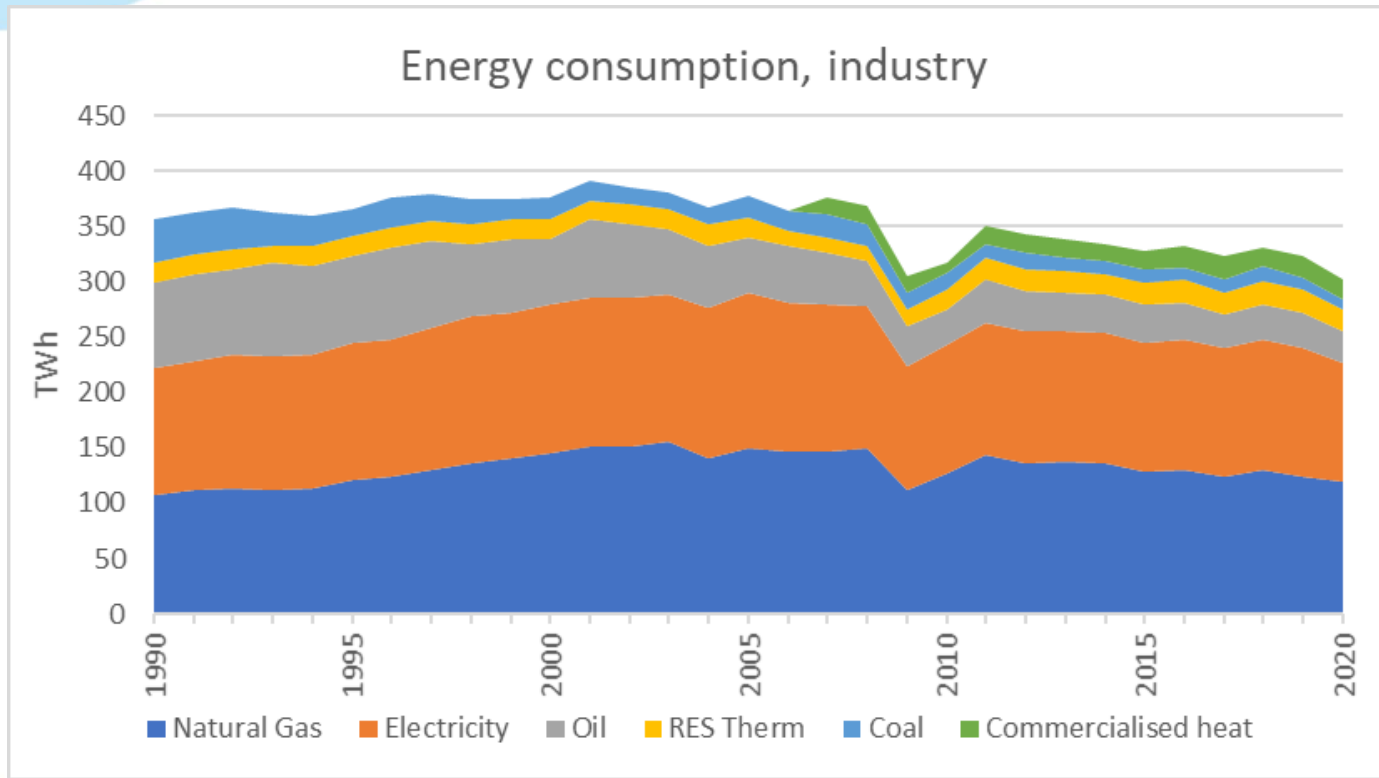
■ Émissions de CO2NM ■ Émissions de NH3 ■ Émissions de NOx
■ Émissions de SO2 ■ Émissions de PM2.5 ■ Émissions de PM10

Pie, Area and 3D charts



- Used when trying to present inter-related data
 - Presents multiple data points in a simple manner
 - 3D charts used when three criteria are plotted together
-
- + Clear and easy to understand
 - + Don't require much expertise, except 3D
-
- Can be poorly presented
 - Not easy to extract analysis/meaning

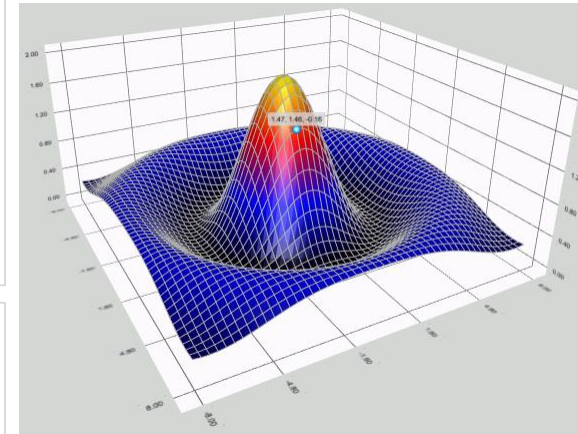
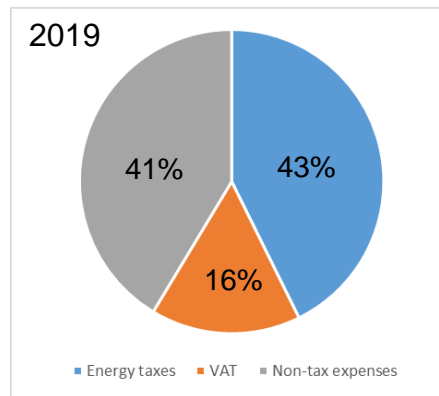
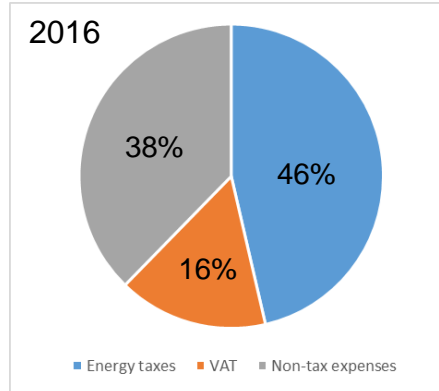
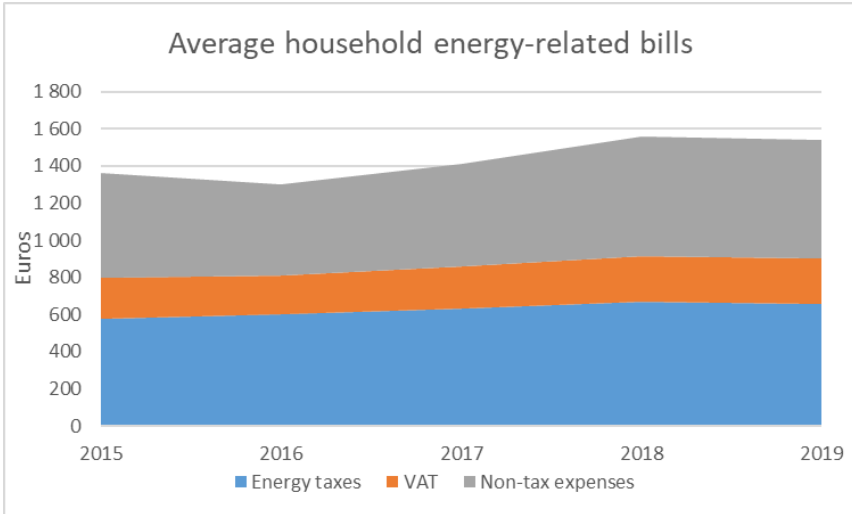
Pie, Area and 3D charts



Pie, Area and 3D charts



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Interesting reading

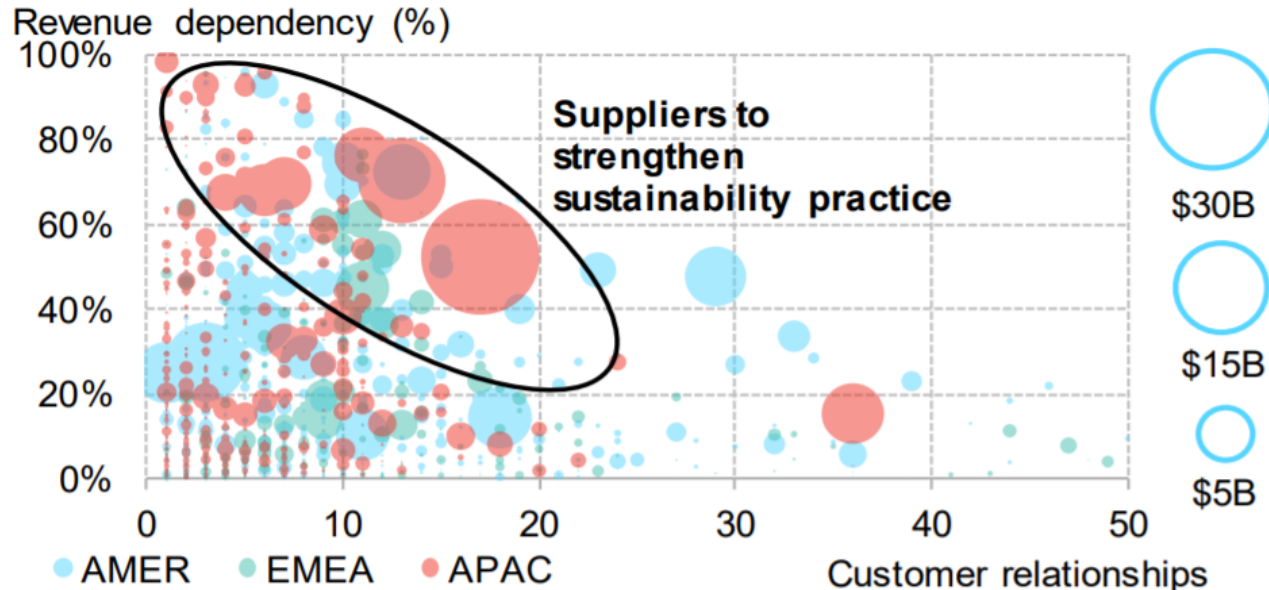
“Save the pies for dessert”, Stephen Few:
<http://www.perceptualedge.com/articles/08-21-07.pdf>

Pie, Area and 3D charts



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Global Supplier exposure, by revenue dependency (y-axis), number of customer relationships (x-axis) and absolute revenues (bubble size)



Source: BloombergNEF, Bloomberg Terminal Note: Chart is based on Bloomberg's SPLC function, and includes tier 1 suppliers only.

Combined + interactive charts



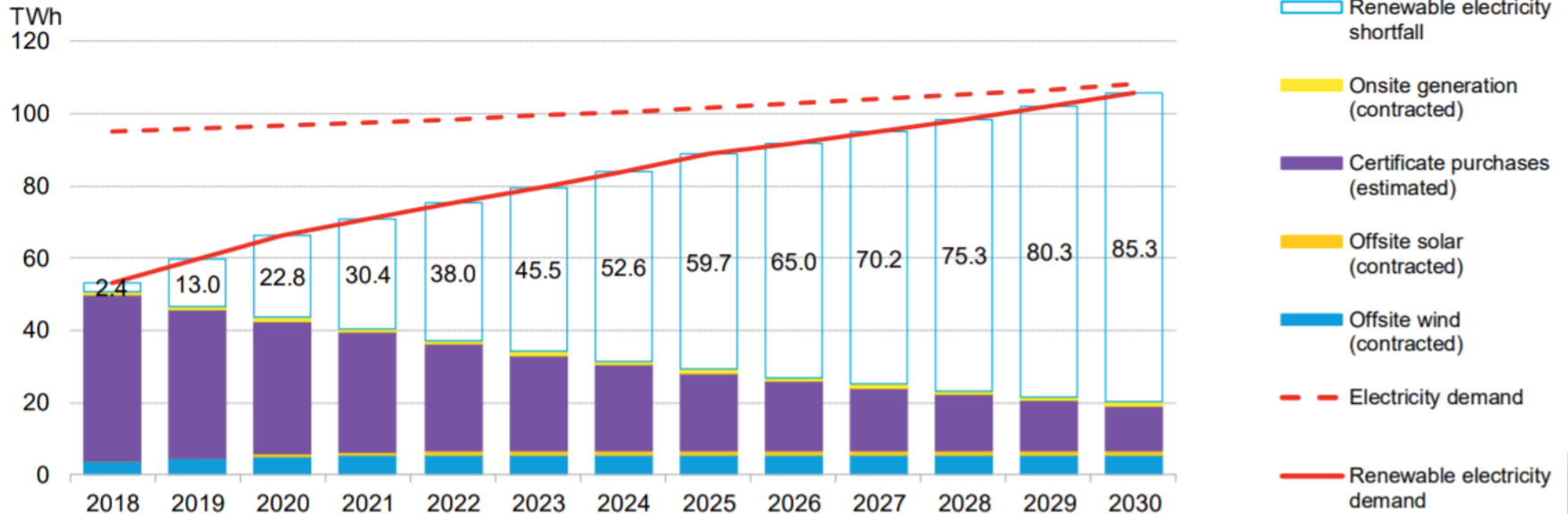
- Comprising of multiple datasets
- For presenting the relationships between different sets of information in a clear fashion
- + Information presents a clear message without need of explanation
- + Accessible and simple to understand
- Requires a good understanding of the data

Example of a combined chart



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Europe projected renewable shortfall for RE100 members



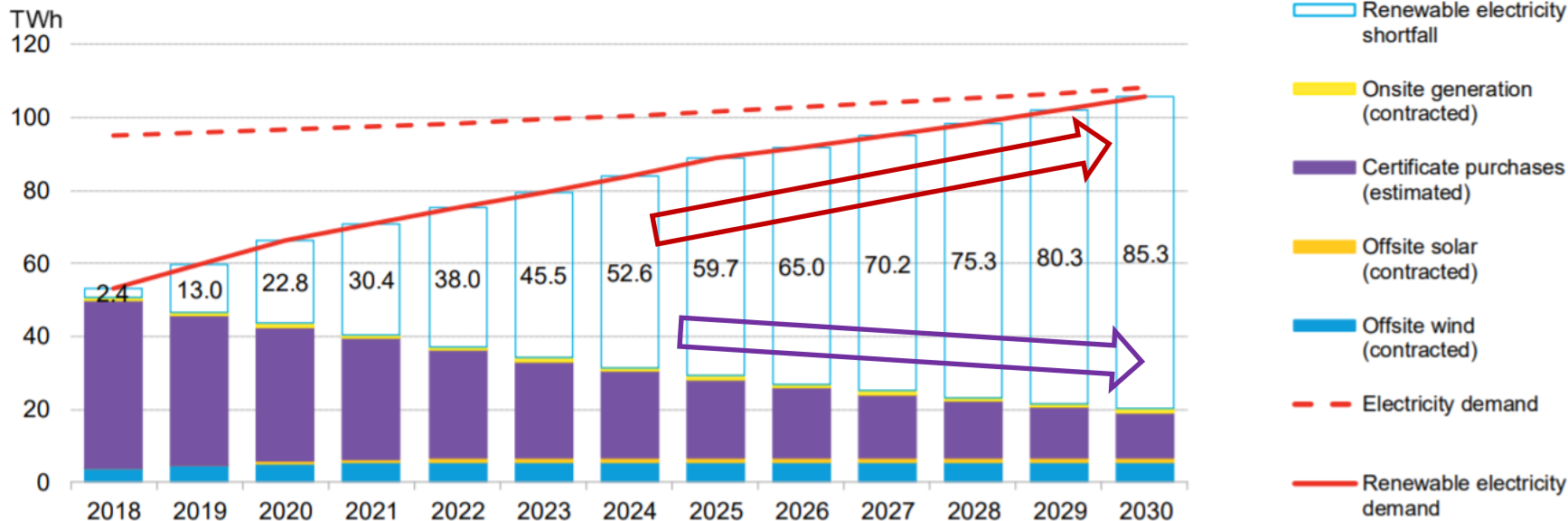
Source: BloombergNEF, The Climate Group, company sustainability reports Note: Certificate purchases are assumed to step down 10% each year. Onsite generation and contracted wind and solar purchases remain flat through 2030. Regional breakdown of shortfall estimated based on each company's share of revenue by region. Electricity demand and renewable electricity demand don't intersect in 2030, as some companies have targets extending out past 2030

Example of a combined chart



ENERGee Watch

Europe projected renewable shortfall for RE100 members



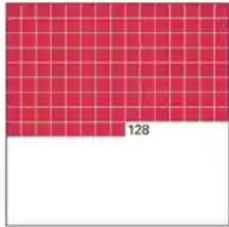
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Example of a combined chart

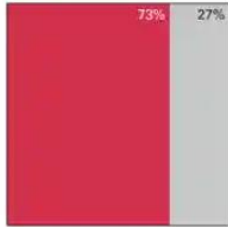


EUROPE

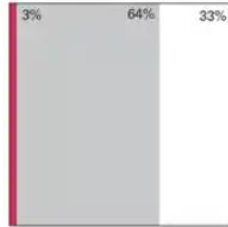
Cities over 500,000



Population

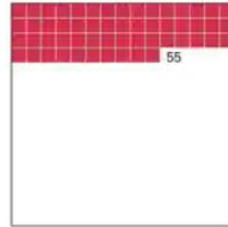


Urban land cover

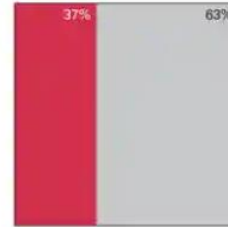


SUB-SAHARAN AFRICA

Cities over 500,000



Population

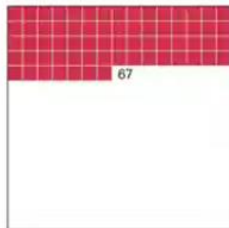


Urban land cover

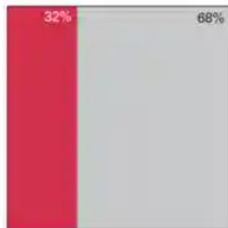


INDIA

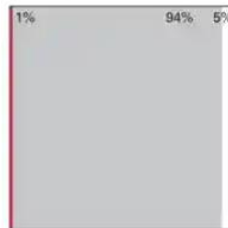
Cities over 500,000



Population

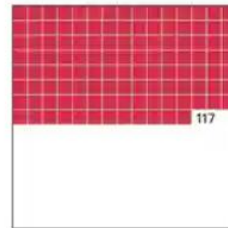


Urban land cover

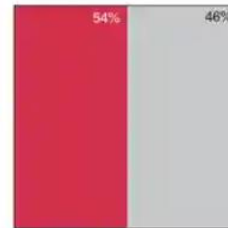


CHINA

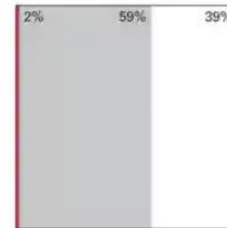
Cities over 500,000



Population



Urban land cover



Urban Rural Other



Data points + tables



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- For when a chart is not necessary
- When only a couple of datapoints are important
- + Clear and to the point
- + Easy to implement
- Can become boring
- Difficult to communicate a complex message

+22%

Increase in residential gas consumption in AURA, 2005-2018

46km

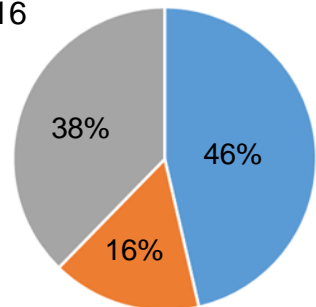
Average commute by car or van in 2017 in AuRA

When to use a data table...



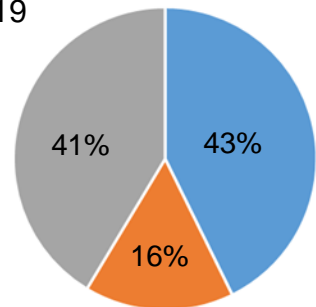
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2016



■ Energy taxes ■ VAT ■ Non-tax expenses

2019



■ Energy taxes ■ VAT ■ Non-tax expenses

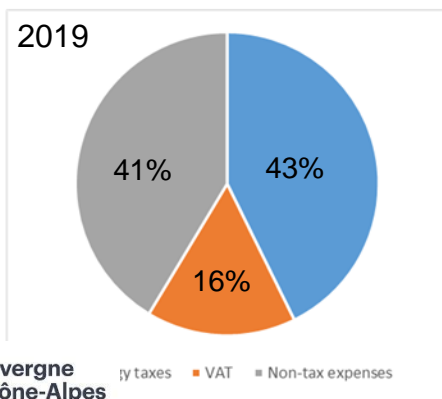
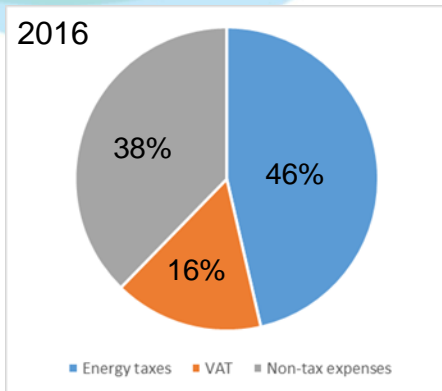


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When to use a data table...



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	2016		2019	
Energy Taxes	3,6	46%	3,9	43%
VAT	1,2	16%	1,4	16%
Non-tax expenses	2,9	38%	3,2	41%
Total	7,6	100%	8,5	100%



Sankey diagrams



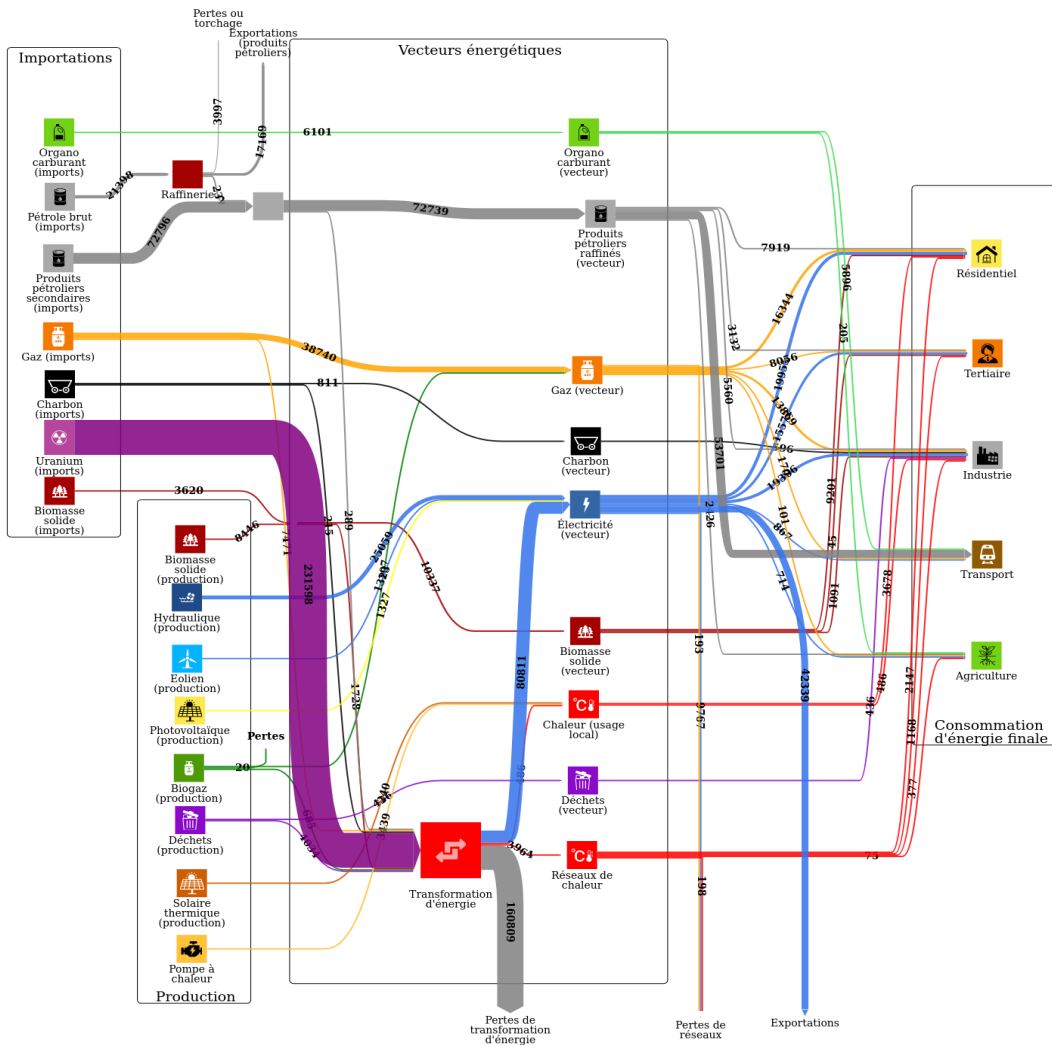
- To present the flow of data from one point to another
- Used to present a system, with lots of information
- + Easy to visualise an entire system in one go
- + Represents vast amounts of data
- + Attractive to the eye
- Complex to create and read
- Can lack detail/precision
- Time consuming process

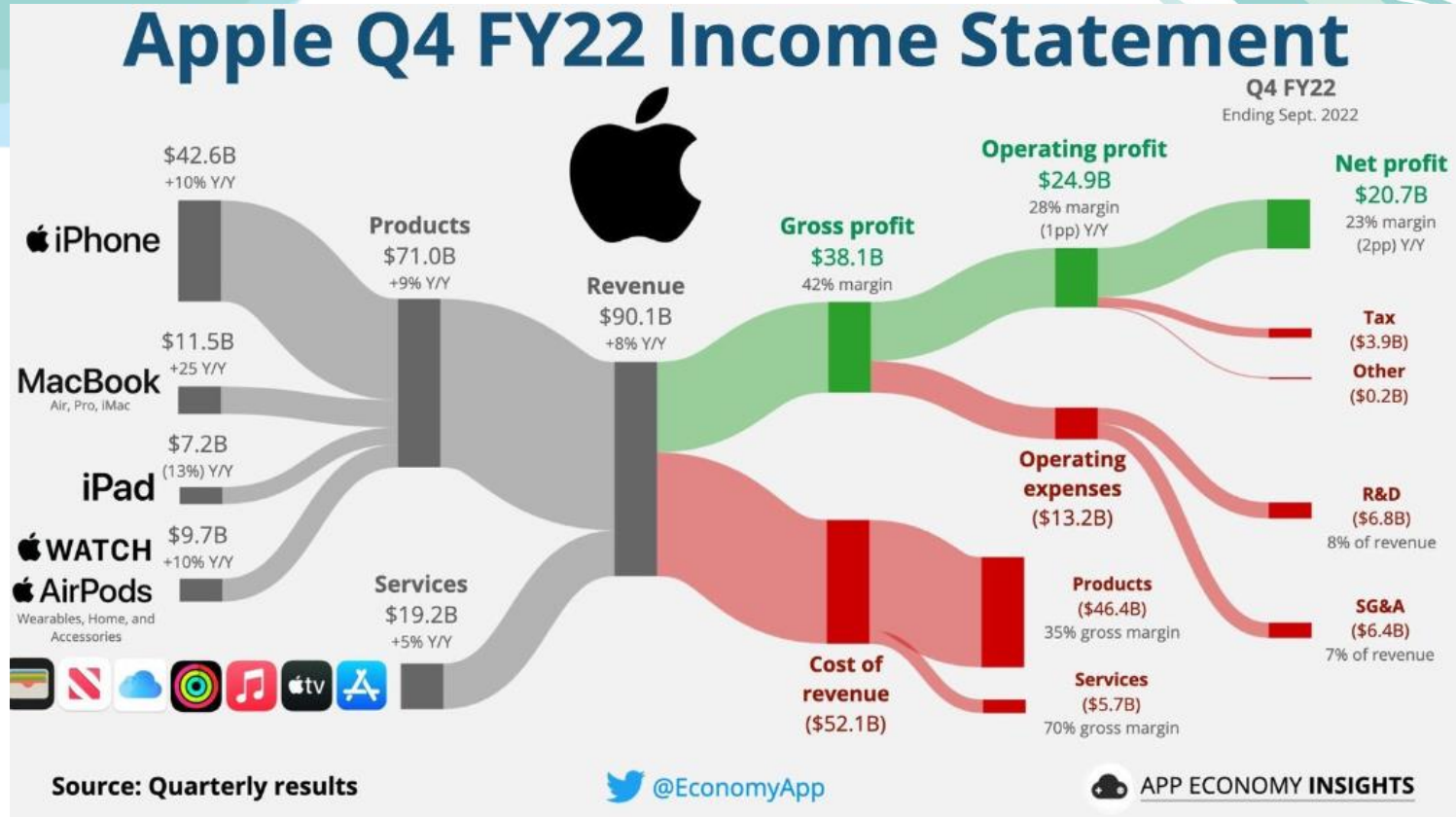
Sankey diagram – Au

<https://tinyurl.com/auraSankeyEnergy>

or

<https://tinyurl.com/auraSankeyBiogaz>





Static data mapping

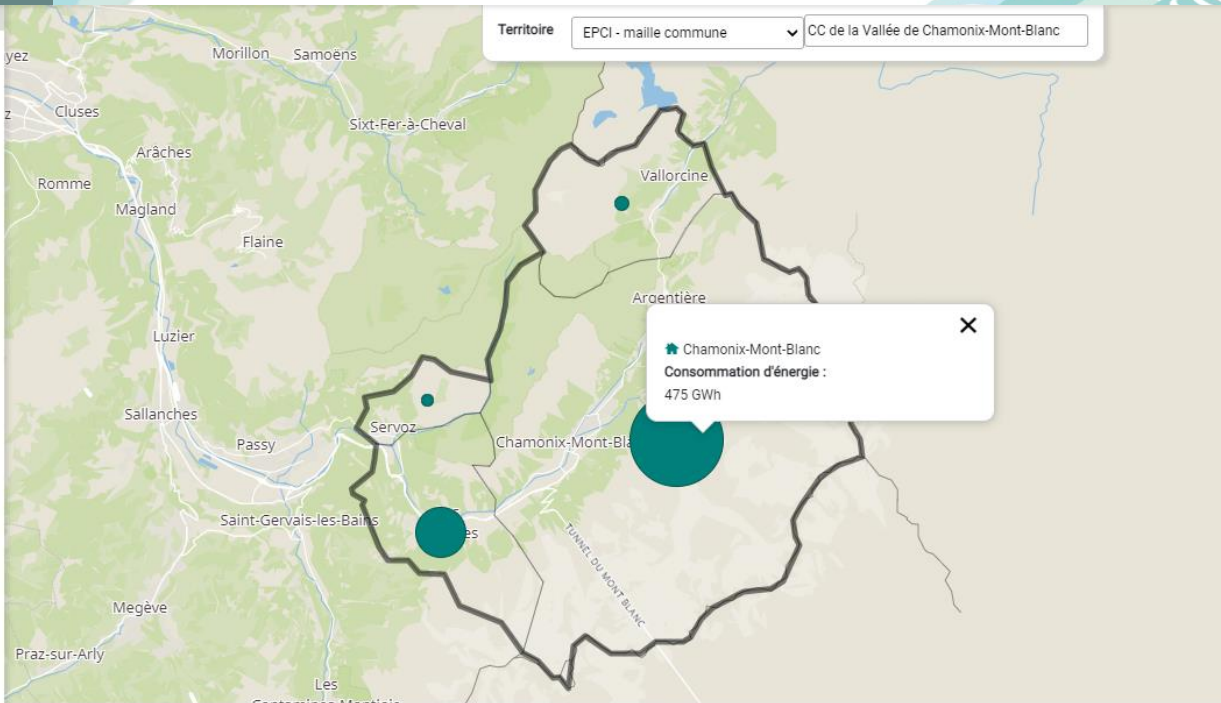


- Translating data onto a map
- To visualise data geographically
- Complex messages portrayed relative to a location

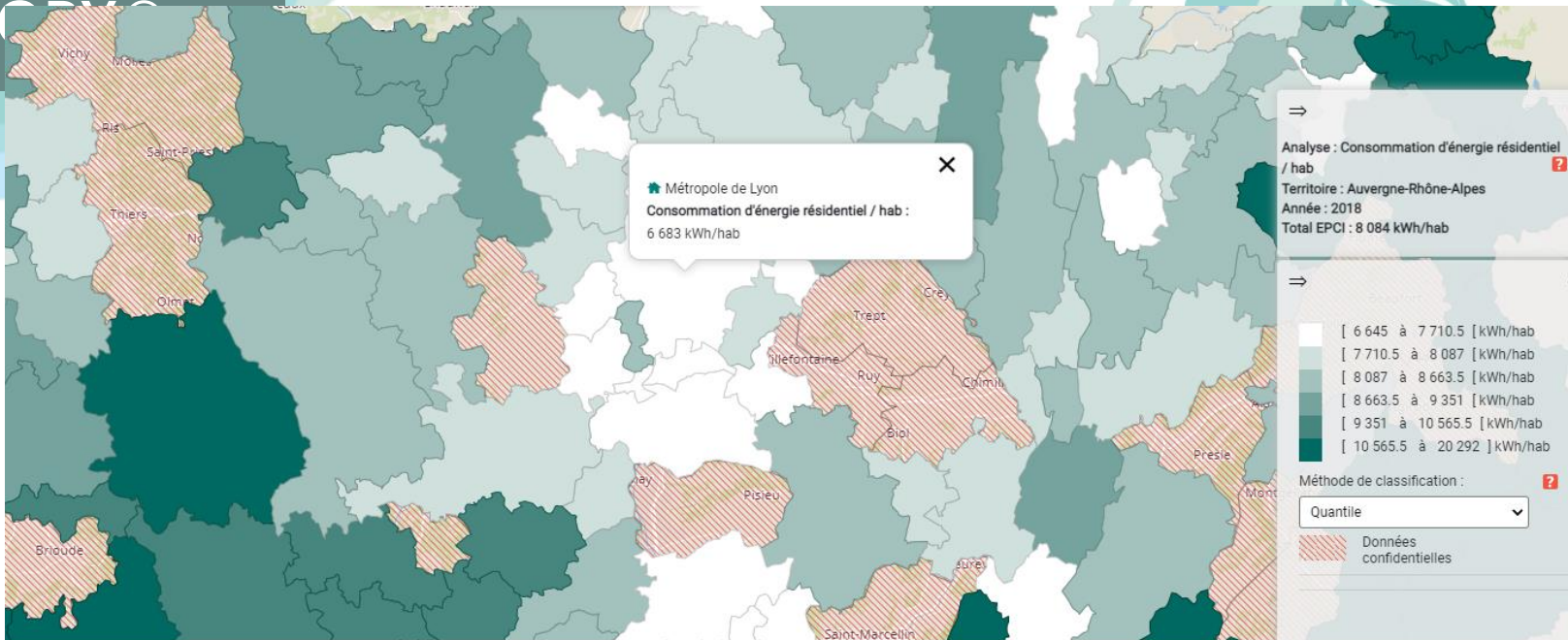
- + Useful in comparing different locations
- + Visually easy to understand

- Requires a lot of development
- Takes a lot of time and effort to produce

- INDICATEURS**
- Rechercher
- ✓ **Consommation d'énergie**
 - Consommation d'énergie
 - Consommation d'énergie / hab
 - Consommation d'énergie primaire
 - Consommation d'énergie primaire / hab
 - Consommation d'énergie résidentiel / hab
 - Consommation d'énergie tertiaire / employé
 - > Mobilité
 - > Polluants atmosphériques
 - > Émissions de GES
 - > Socio-économie
 - > Climat
 - > Facture énergétique
 - > Infrastructures
 - > Environnement
 - > Production d'énergie
 - > Potentiels ENR
 - > Gestion des déchets



TerriSTORY

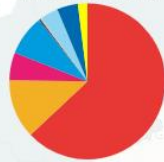


Par type d'énergie (Région)



- Combustibles Minéraux Solides
- Électricité
- ENR thermiques
- Produits pétroliers
- Organo-carburants
- Gaz
- Chauffage et froid urbain
- Déchets

Par usages (Région)



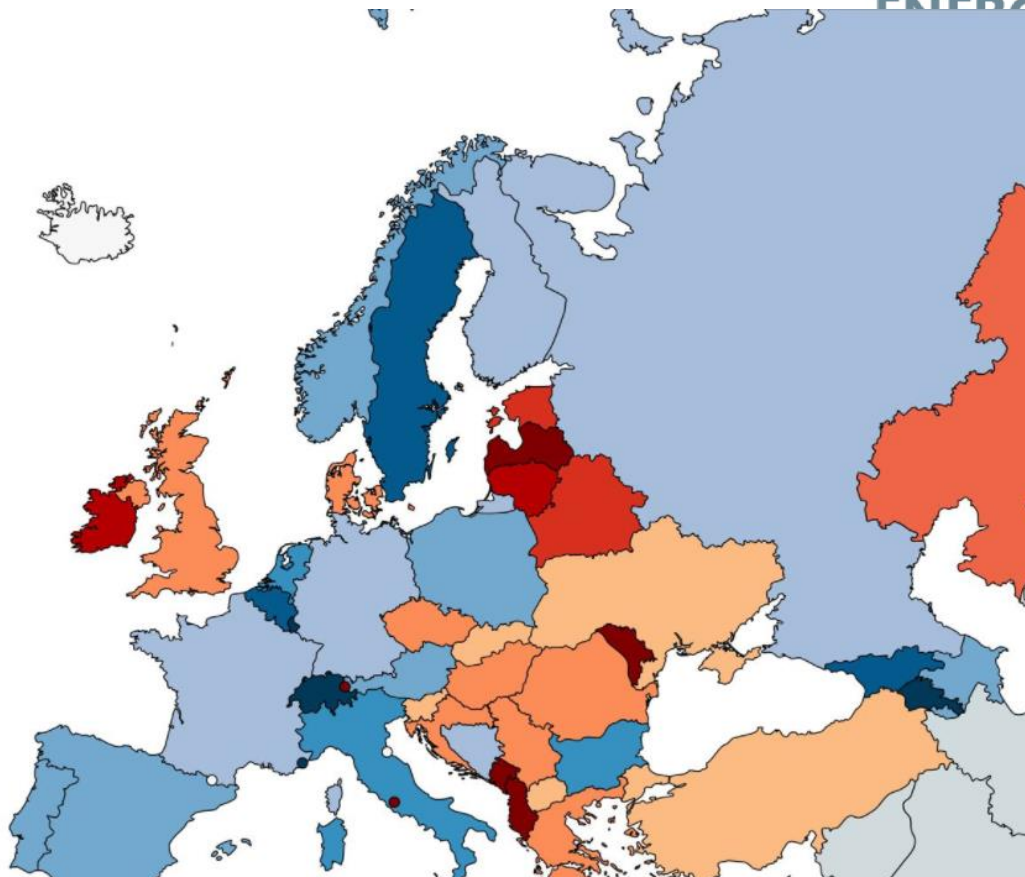
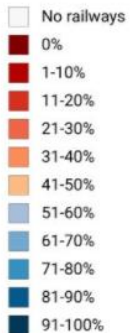
- Chauffage
- Eau Chaude Sanitaire
- Cuisson
- Electricité spécifique
- Autres usages
- Industriel
- Froid
- Lavage
- Installations agricoles
- Engins agricoles
- Climatisation
- Transport de personnes
- Transport de marchandises
- Cheptels
- Cultures

Another example of clear data mapping



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Percentage of electrified rail network over total network length



Dynamic time-series data



- To understand how a data point or series has developed over time
- Specific focus on one or two datapoints
- + Shows a clear and definitive message
- + Interesting to the observer
- Difficult to implement
- Lots of time and effort required

Time-series data examples

“Which countries have emitted the most CO2?”, Carbon Brief

<https://www.youtube.com/watch?v=jx85qK1ztAc>

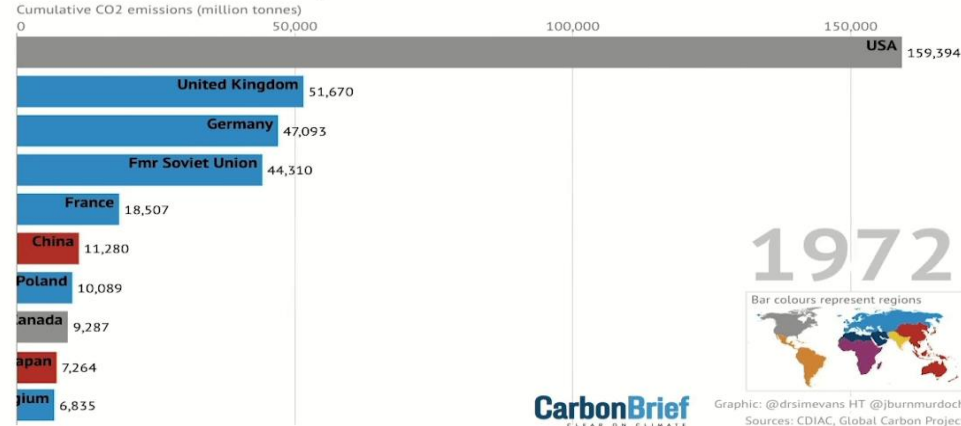
“Google Timelapse: Urban Explosion | TIME”

<https://www.youtube.com/watch?v=AqUSo2hstHI>



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The countries with the largest cumulative CO2 emissions since 1750



Textual representation of information



- For when a chart is not necessary
 - When data is either not available or not applicable
 - Allows a better explanation of trends
-
- + Accessible to a large audience
 - + Provides much more information
-
- Takes time to develop (as discussed in Topic 2)
 - Requires a better knowledge of the audience

Examples of textual representation



- Tables (see examples)
- Newsletters
- Leaflets
- Executive summaries
- Short bulletins
- Emails
- Long-form reports



Example of textual representation



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Tableau de synthèse

Thème	N°	Indicateur	Unité	Valeur territoire	Valeur normalisée	Médiane (EPCI)	Valeur normalisée médiane	Minimum (EPCI)	Maximum (EPCI)	Année de la donnée
A - Territoire et environnement	A1.6	Stocks de carbone	teqCO2 / ha	215	3.61	225.5	3.83	41	282	2018
A - Territoire et environnement	A3.1	Part d'espaces naturels	%	35	1.8	41	2.11	0	97	2018
A - Territoire et environnement	A8.1	Émissions GES / hab	teqCO2 / hab	5.67	4.51	5.8	4.49	1.83	40.88	2021 (e)
A - Territoire et environnement	A8.3	Émissions GES tertiaire / employé	teqCO2 / employé	1.76	3.9	1.42	4.12	0.02	7.94	2021 (e)
A - Territoire et environnement	A8.4	Émissions GES résidentiel / hab	teqCO2 / hab	0.81	4.44	0.94	4.1	0.6	2.48	2021 (e)
B - Énergie / Consommation de ressources	B1.1	Consommation d'énergie / hab	kWh / hab	27 071	4.68	24 793	4.73	11 128	259 708	2021 (e)
B - Énergie / Consommation de ressources	B1.2	Consommation d'énergie tertiaire / employé	kWh / employé	12 010	4.49	12 575	4.46	316	114 203	2021 (e)
B - Énergie / Consommation de ressources	B1.20	Part EnR/Consommation d'énergie	%	59.1	0.53	17.51	0.13	3.65	529.69	2021 (e)
B - Énergie / Consommation de ressources	B1.3	Consommation d'énergie résidentiel / hab	kWh / hab	7 300	4.56	8 346	4.16	6 128	19 380	2021 (e)

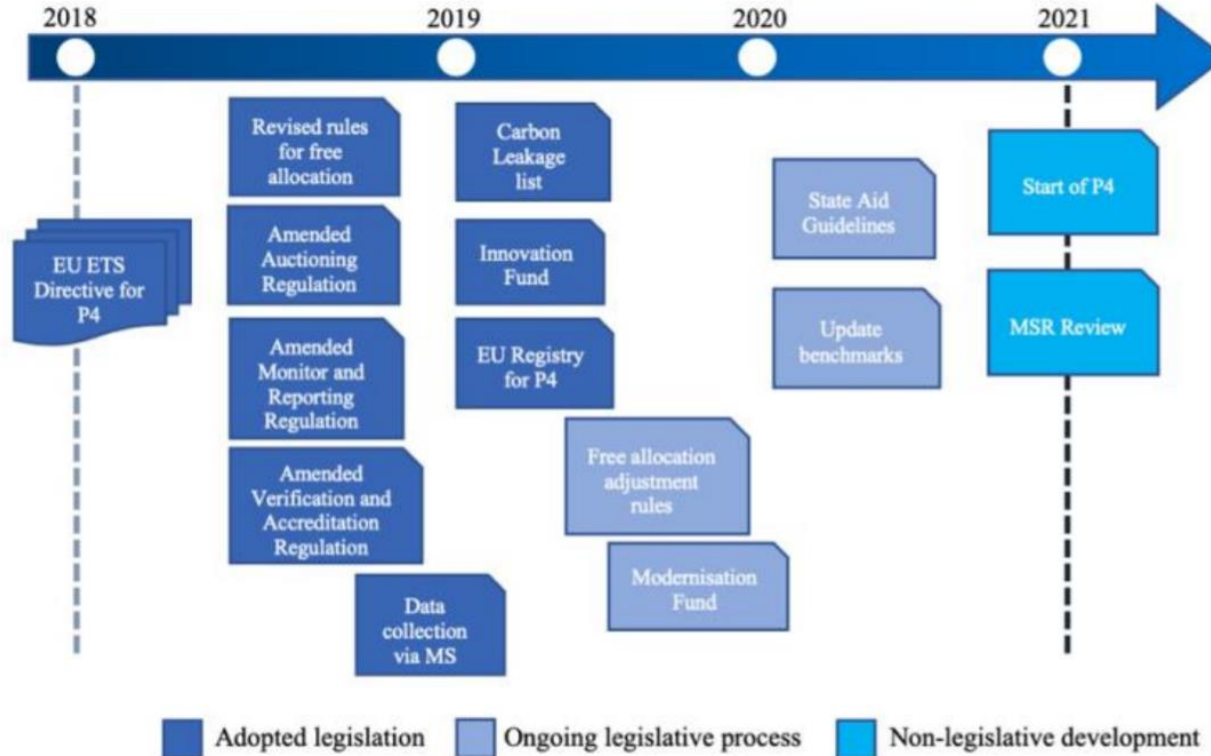
Source : TerriSTORY® /

https://auvergnhonealpes.terristory.fr/notes?zone=epci&maille=commune&zone_id=200073096&nom_territoire=CA%20Arche%20Agglo

Example of textual representation



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Manipulating data



ENERGee Watch

- Each of these options require **manipulation of data**, some more than others
- With raw data it can be **difficult to identify the trends**
- Having to filter out unnecessary data
- For most types of charts, **excel** can be used to implement these
 - For a lot of others, **specific software or programming** is required
- For example, TerriSTORY® utilises a lot (a LOT) of code
- The Sankey diagrams use an external Open-Sankey library



Other examples



- Presenting data to regional authorities:
 - Clear and simple
 - Get the message across
 - Make the link with objectives

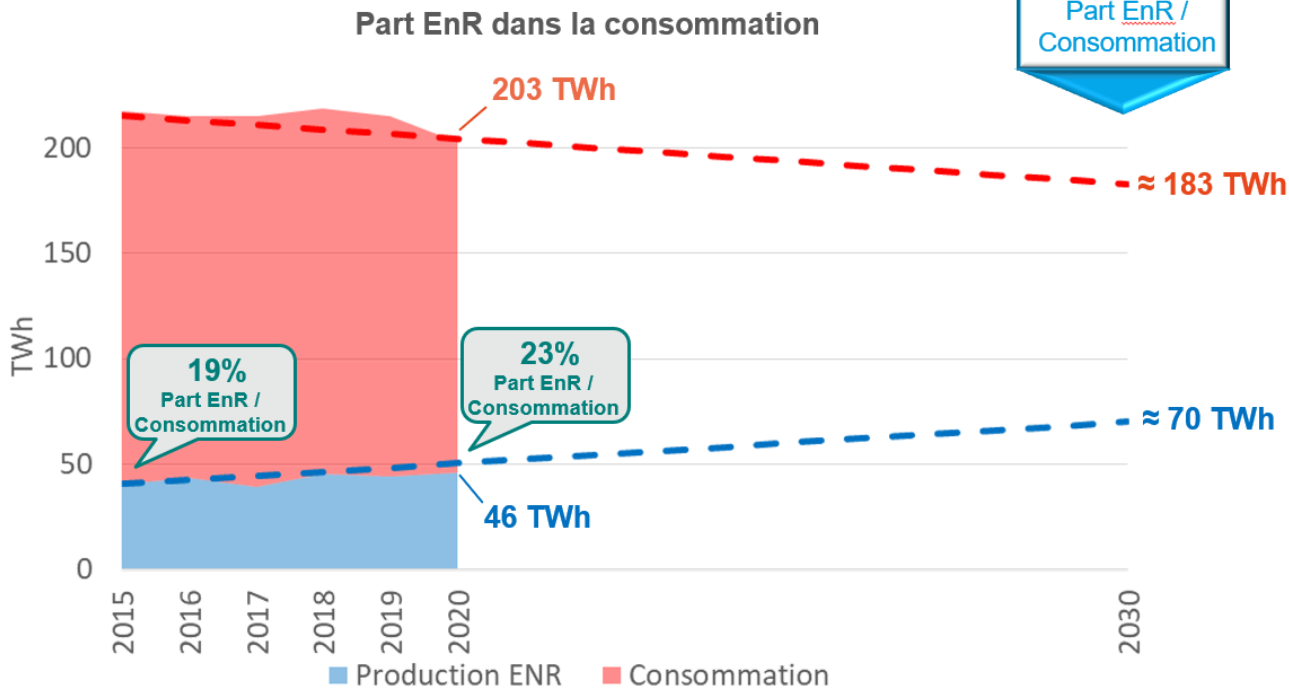
Other examples

PRODUCTION EnR



Match

Objectif
2030*
38%
Part EnR /
Consommation



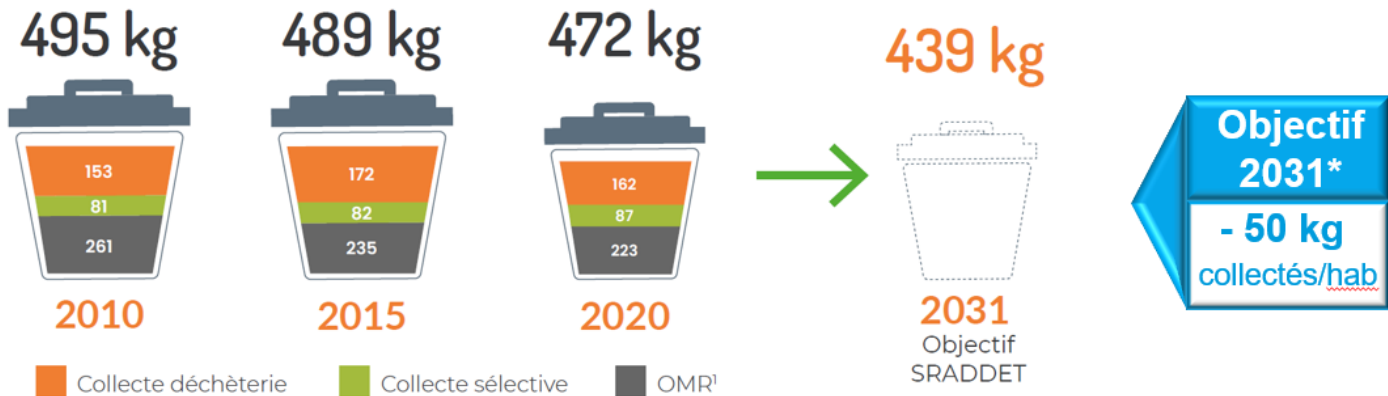
Other examples



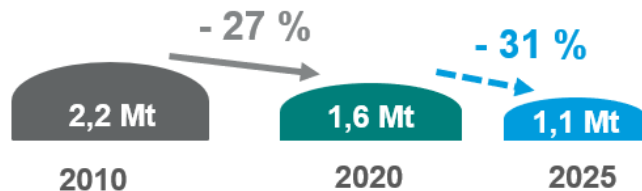
tch

Quantités de déchets ménagers et assimilés (DMA¹) collectés par habitant

Prévention : réduction des tonnages de DMA collectés par habitant



Réduction de la quantité de DNDNI³ enfouis



Conclusions



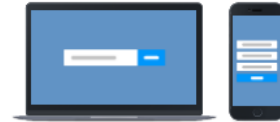
- Many forms of representation at your fingertips
- Some are quick and simple (most common)
- Some take more time, but the effect is larger

Over to you...

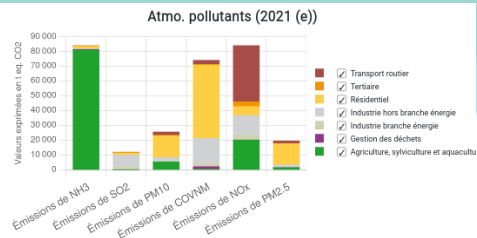


Q: Let's ask you how you feel about all these representations!

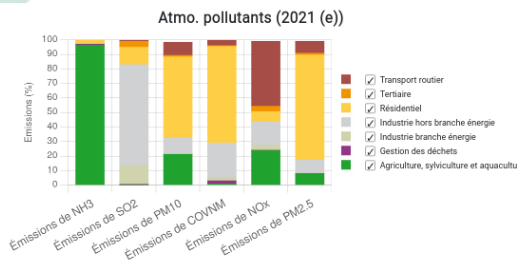
Join by Web



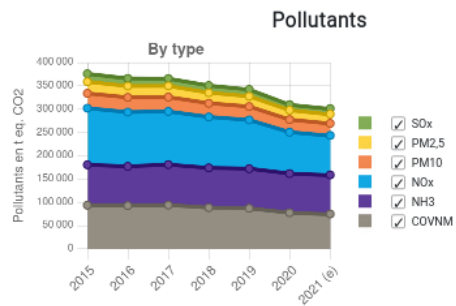
- 1 Go to **PollEv.com**
- 2 Enter **MATTHIEUDENOUX407**
- 3 Respond to activity



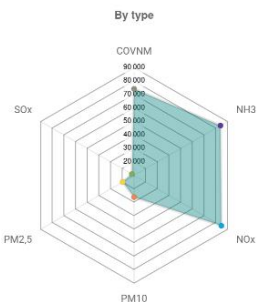
(e) = données estimées



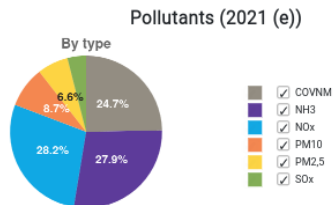
(e) = données estimées



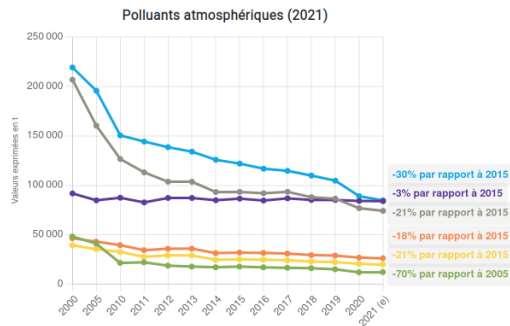
Polluants (2021 (e))



(e) = données estimées



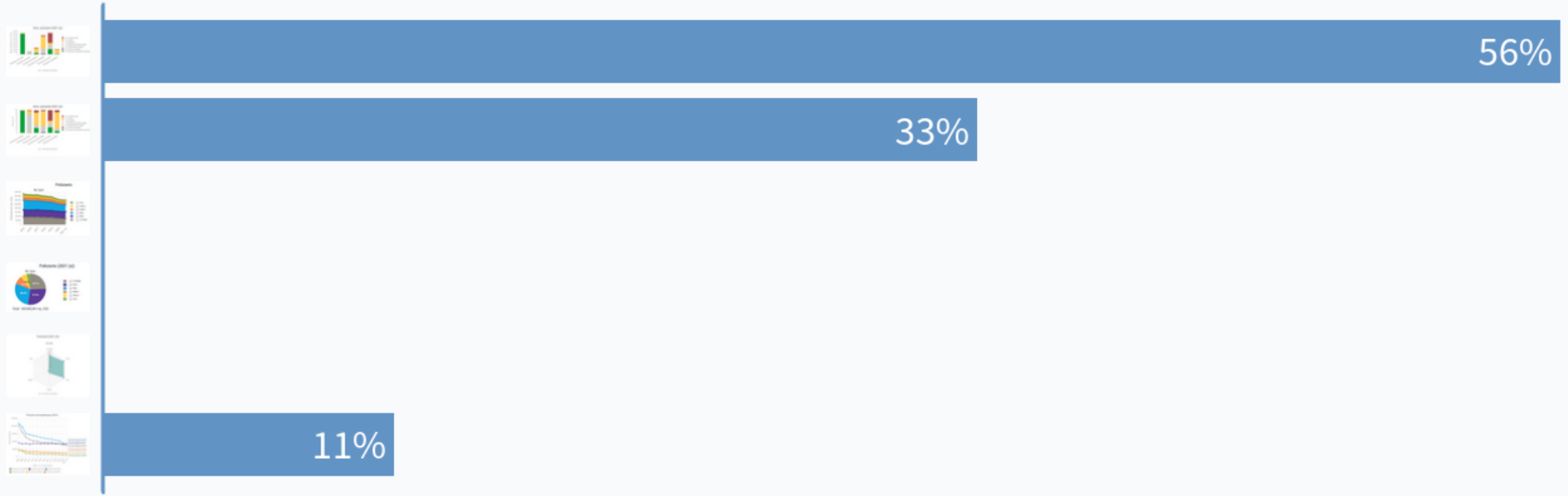
Total : 300 865,49 t eq. CO2



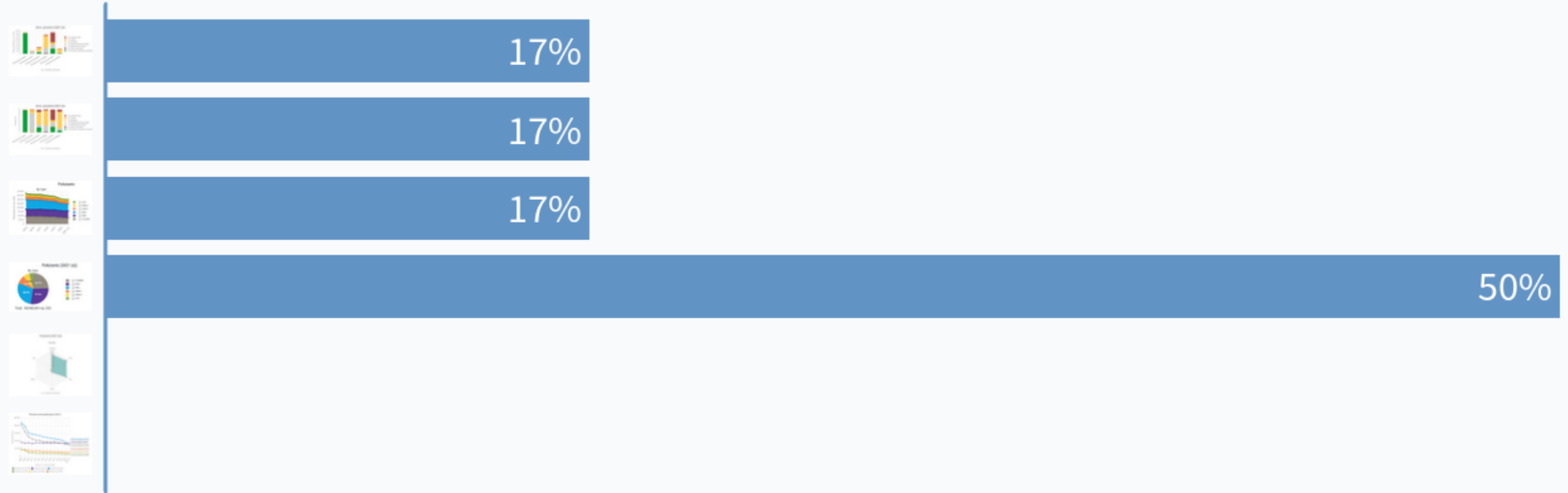
Années : (e) = données estimées

Émissions de COVNM
 Émissions de NH3
 Émissions de NOx
 Émissions de SO2
 Émissions de PM2.5
 Émissions de PM10

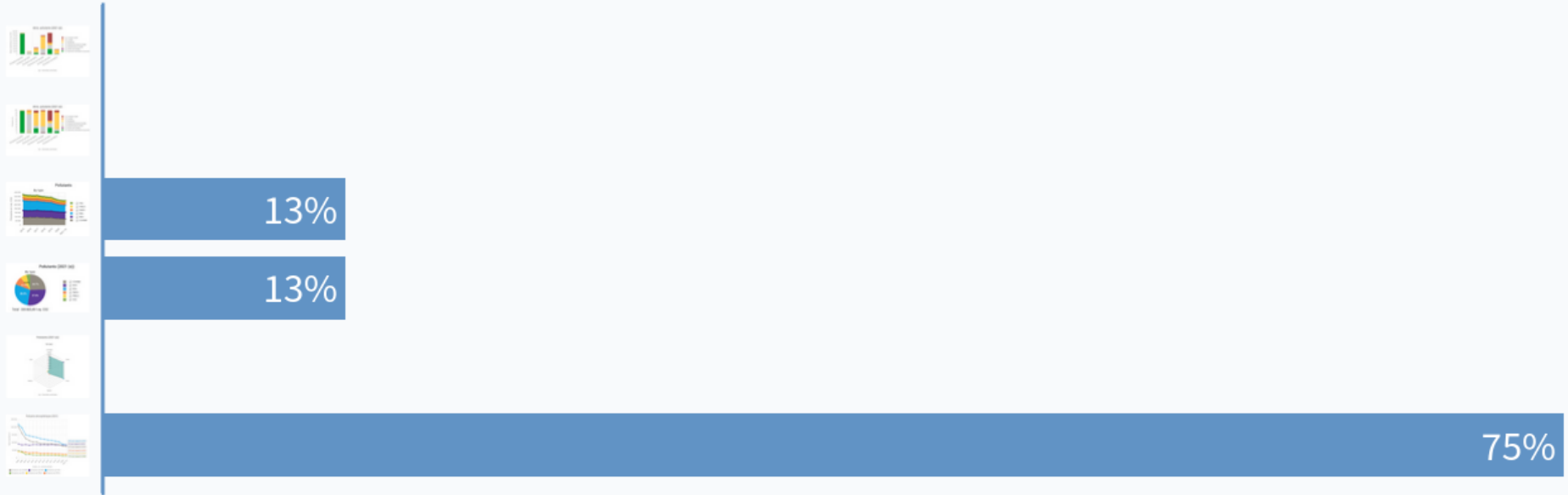
What is the best representation to determine which sector has the greatest impact in terms of air pollutants?



What is the best representation to determine which pollutant has the highest emission level?



What is the best representation to determine historical evolution for air pollutants





ENERGee Watch

Topic 4: Implementing data display tools



**Auvergne
Rhône-Alpes**
Énergie Environnement



ENERGee Watch has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 752126.

Areas to be covered...



Within AURA-EE, we produce a variety of display options across different sources:

- Data centre (observatory)
 - Data
 - Publications
- Various maps
- Sankey diagrams + how to implement them
- TerriSTORY®
 - External stakeholder validation



ENERGee Watch

Creating graphs



Regional Climate Air and Energy Observatory (data centre)

- Lots and lots of data and information available
 - See key figures document [here](#)
- Most of the information available in **two forms**
 - **Simple graphs**
 - **Data tables for more detail**
- Also offer regional level maps for mapping different data
 - Temperature differences
 - Renewable energy potentials

ORCAE – Making graphs more interesting



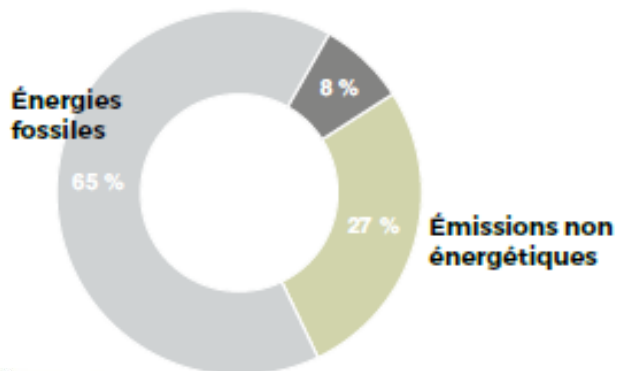
- Most graphs are developed using excel
- Some exceptions, integrating our communications team to make the graphs look more interesting
 - Here are some examples...

ORCAE – Making graphs more interesting

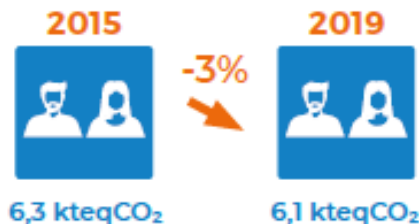
Part des secteurs dans les émissions en 2019



Sources des émissions de GES en 2019



Évolution émissions de GES par habitant



Created using
Excel, made more
attractive using
Adobe Illustrator

ORCAE – Making graphs more interesting

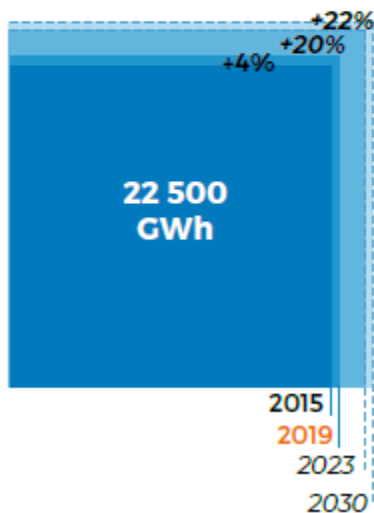


ENERGee Watch

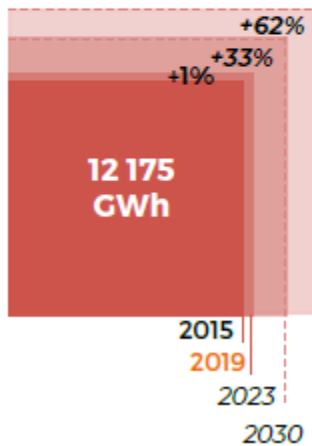
Évolution de la production d'énergie renouvelable

par rapport aux objectifs SRADET 2023 et 2030

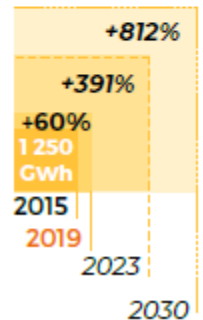
Hydroélectricité



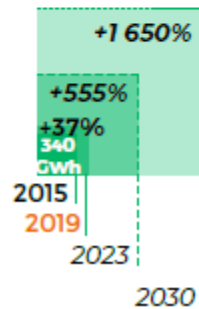
Bois énergie



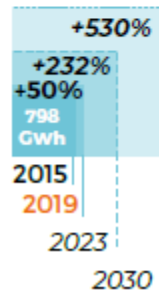
Photovoltaïque



Biogaz



Eolien



Created entirely on
Adobe Illustrator

ORCAE – Making graphs more interesting

Before



Created using **Excel**

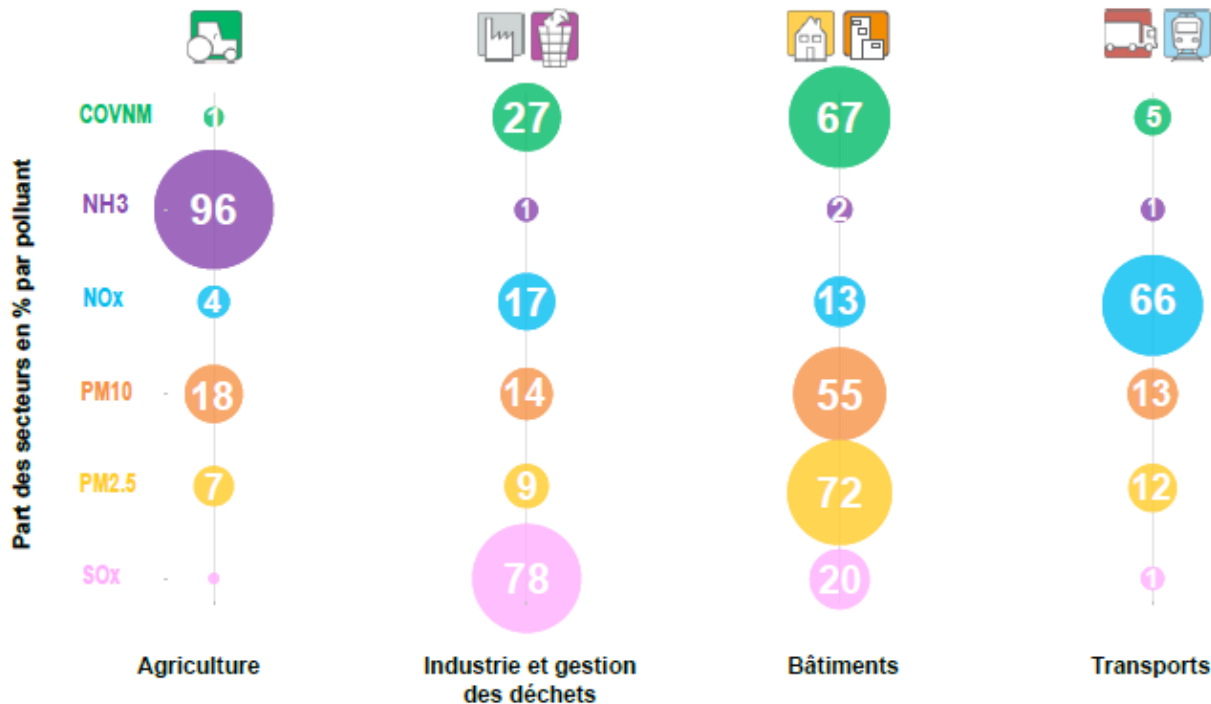
Source: <https://www.orcae-auvergne-rhone-alpes.fr/>

ORCAE – Making graphs more interesting



le Watch

Émissions de polluants atmosphériques par secteur en 2019



After

Made more attractive using **Adobe Illustrator**



ENERGee Watch

Creating maps



ORCAE – Regional-level maps



- Also offer regional level maps for mapping different data
 - Temperature differences, days of frost, days of excessive heat, harvest date, rainfall, etc.
 - Renewable energy potentials
- Created using [QGIS](#), an free, open-source data mapping tool
 - This tool requires multiple levels of data
 - Firstly a map (AURA – IGN 2018)
 - Then the data you wish to overlay

Creating maps using QGIS...



ENERGee Watch

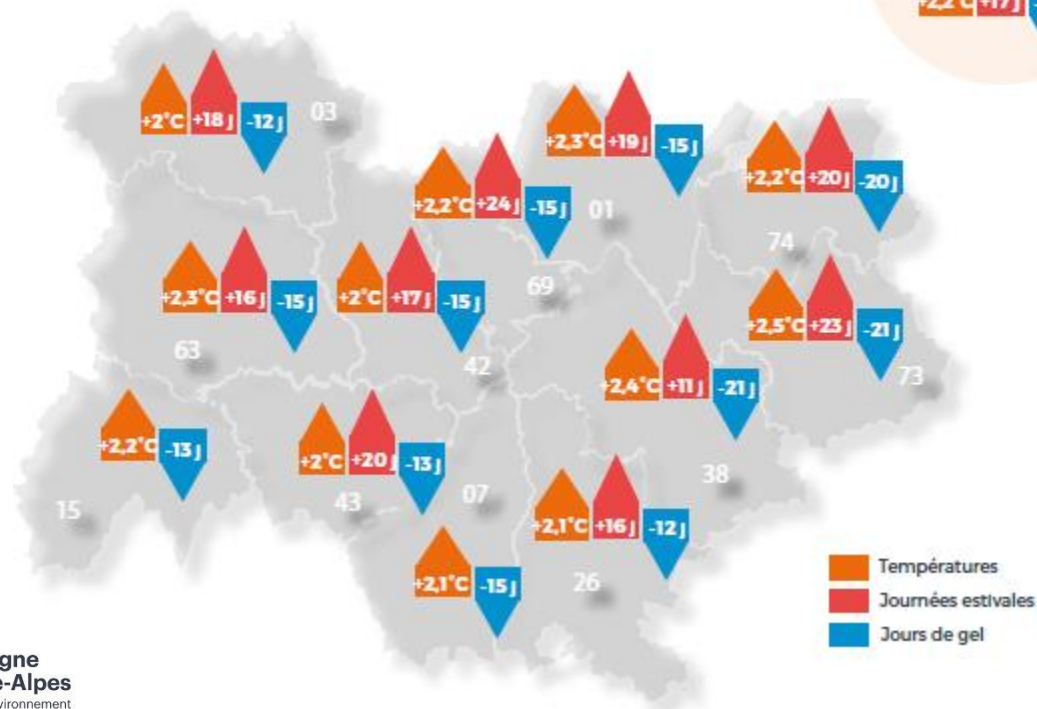
- Multiple indicators to be overlaid onto the map (first slide)
 - Different indicator for each department/county
 - Not a lot of detail required for them to be overlaid
- Biogas potential in each territory (second slide)
 - Overall biogas potential from multiple sources
 - Breakdown by type of use
 - In the correct format to be integrated into QGIS (.csv)
- Wind capacity potential across the whole region (third slide)
 - Lots more detailed data required on a much finer level

ORCAE – Example data mapping

Évolution des températures moyennes, du nombre de jours de gel et du nombre de journées estivales entre 1960 et 2019

évolution entre les 2 dernières périodes trentennales.

Tendance régionale

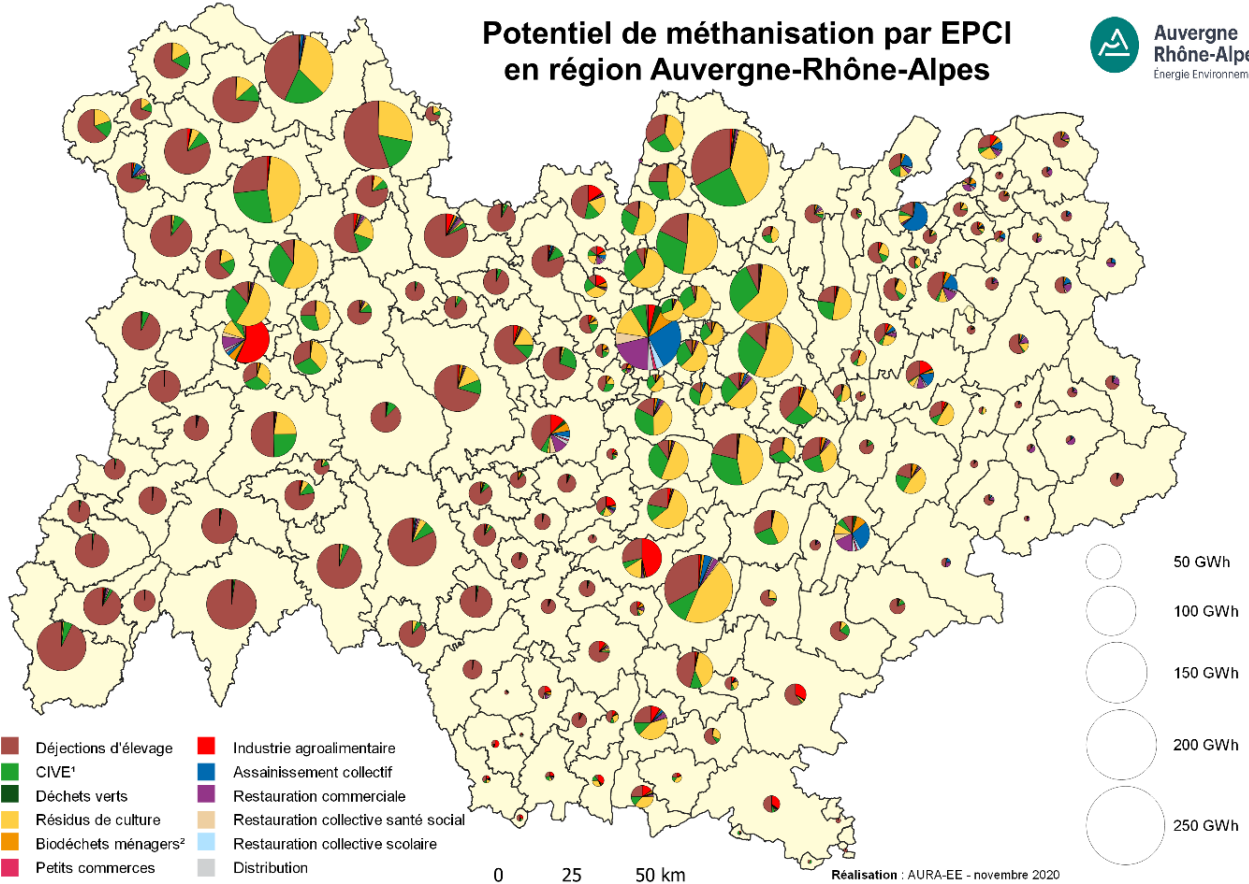


12
departments
represented

ORCAE – Example data mapping



Around 250 territories represented



ORCAE – Example data mapping

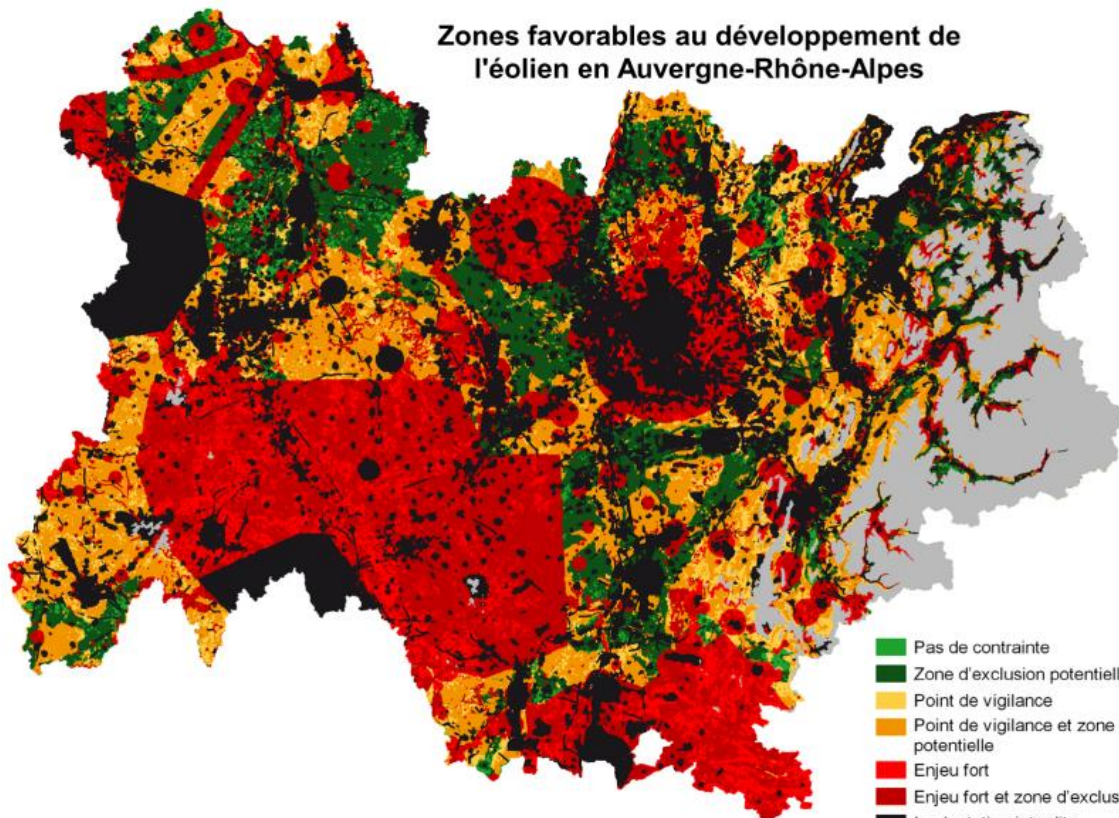


ch

Much more complex data mapping

Mapped by hectare

Zones favorables au développement de l'éolien en Auvergne-Rhône-Alpes



- Pas de contrainte
- Zone d'exclusion potentielle
- Point de vigilance
- Point de vigilance et zone d'exclusion potentielle
- Enjeu fort
- Enjeu fort et zone d'exclusion potentielle
- Implantation interdite
- Secteurs avec une altitude >1500m



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Creating a Sankey (or flow) diagram

Creating a Sankey (or flow) diagram



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- Three types of information are required to create a Sankey diagram:
 - A **Source**: from where the data comes from
 - A **Destination**: where the data point finishes
 - The “**Weight**”: the value of such data
- Sankey diagrams can be as simple or as complex as you wish them to be depending on the audience and the data available
- We use the **e!Sankey** software ([introduction video](#), [support videos](#)) or **Open-Sankey** library ([see here](#))



ENERGee Watch

Topic 5: TerriSTORY®

An online tool to accompany territories with their energy objectives



**Auvergne
Rhône-Alpes**
Énergie Environnement



ENERGee Watch has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 752126.

Quick overview

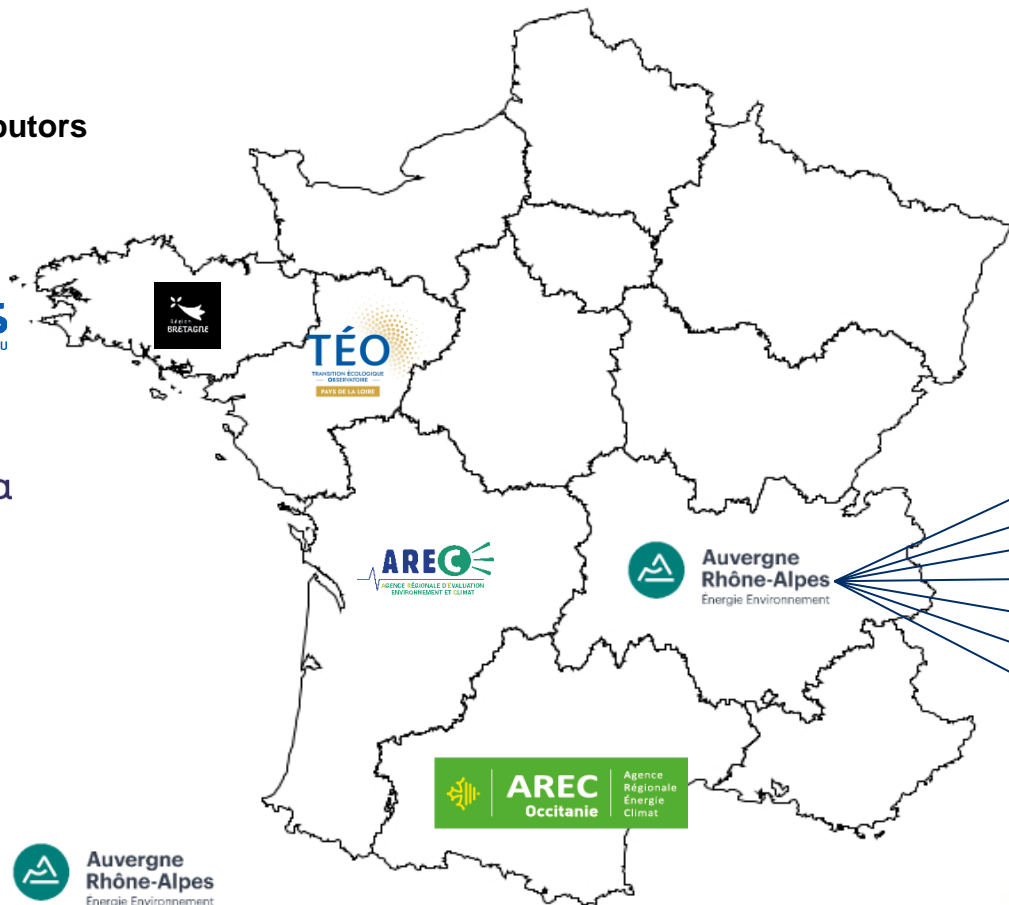


<https://www.youtube.com/watch?v=4q8WzP4MAek>



TerrISTORY® Partners (May 2023)

National contributors



Regional contributors in Auvergne-Rhône-Alpes



Coordinator



Technical support from *Inria*



TerriSTORY®: Governance

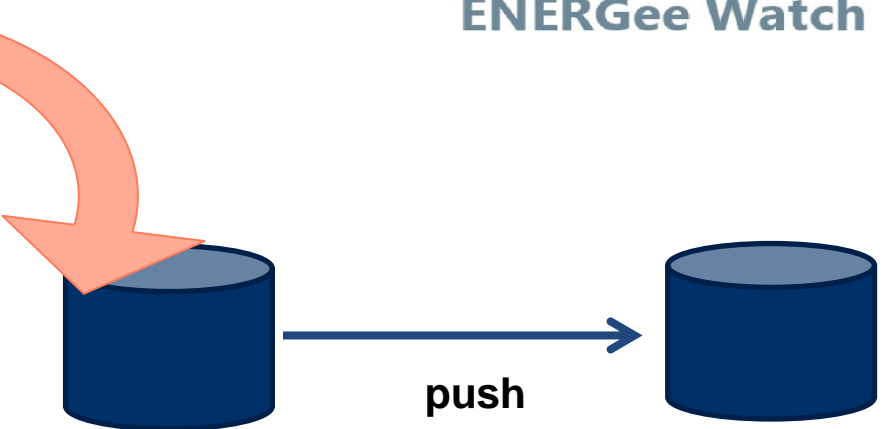


ENERGee Watch

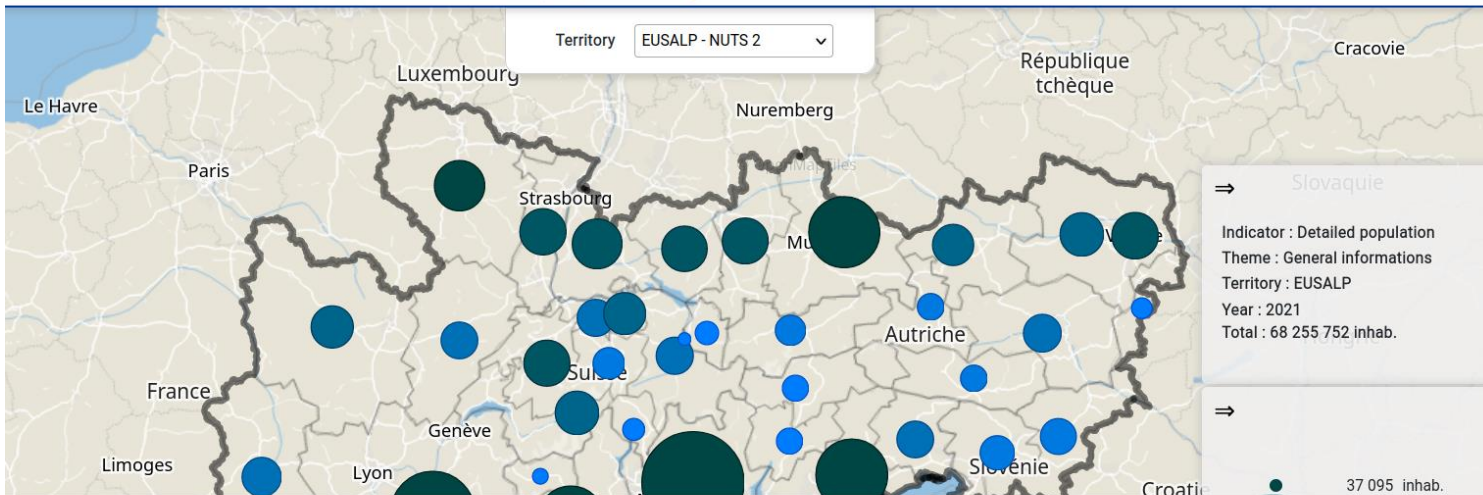
- TerriSTORY® is a project co-constructed with the local territories
- A multi-level governance system is in place:
 - National project consortium for global strategic direction (since 2020)
 - National pilot committee governs overall developments
 - Annual budget, partner organisations, intellectual property
- Regional pilot committees govern localised developments
- Project partners may also contribute on their own accord

- As the project develops, we are continually searching for additional sources of development and financing
- This includes:
 - Developing other French regions
 - Private companies requesting specific capabilities
 - Calls for European projects

TerriSTORY®: CERVINO



TerriSTORY® : CERVINO



⇒ Slovaquie

Indicator : Detailed population
Theme : General informations
Territory : EUSALP
Year : 2021
Total : 68 255 752 inhab.

⇒

37 095 inhab.

9 171 920 inhab.

Age class (Région)



- Age between 1 and 8
- Age between 18 and 35
- Age between 35 and 50
- Age between 50 and 65
- Age between 65 and 80
- Age between 8 and 18
- Age between 80 and 100

Sex (Région)



- Female
- Male

Circle size



TerriSTORY® : Going beyond data



Simulateur d'impacts mobilité

Objectif : donner les ordres de grandeur d'impacts associés aux principaux leviers de la mobilité

Leviers pour « moins se déplacer » ↻

❖ Leviers de réduction – trajets domicile-travail

Réduire le nombre d'actifs devant se déplacer ?



Réduire le nombre de km parcourus par trajet ?

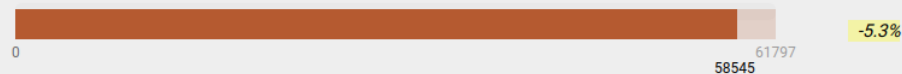
❖ Leviers de réduction – déplacements personnels hors travail

Réduire le nombre de km à parcourir pour accéder aux services & loisirs ?

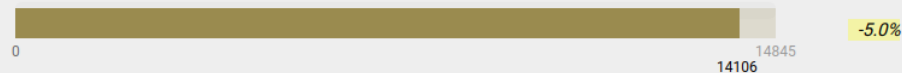
❖ Leviers de réduction – transport de marchandise

Réduire le nombre de km pour le transport de marchandise ?

Impact énergétique - transport routier (en GWh) :



Impact carbone - transport routier (en ktCO2e) :



Impact facture énergétique - transport routier (en k€) :

Prêt pour construire votre plan d'actions « mobilité » ?

Retour au tableau de bord Mobilité

TerriSTORY®: Some figures...



Budget 2022: approximately **€300,000**

Time spent 2022: **850** days across **13** employees

Available in **6** French regions

Soon in **38 alpine regions across 7** countries!

TerriSTORY®: Future developments



TerriSTORY® is in constant evolution:

- An innovative analysis dashboard to track progress
- New indicators to present new data sets, such as mobility indicators
- Visualisation of energy flows
- Simulating mobility actions

With increasing popularity, the coverage area is growing

TerriSTORY® is **Open-Source** on gitlab.com/terristory/terristory/

- Allowing users to contribute to the improvement of the tool



ENERGee Watch

Topic 6: Data dissemination



**Auvergne
Rhône-Alpes**
Énergie Environnement



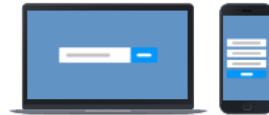
ENERGee Watch has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 752126.

Over to you...



Q: When speaking of data dissemination, what are the main issues/drawbacks/points to watch/blocking factors according to you?

Join by Web



- 1 Go to **PollEv.com**
- 2 Enter **MATTHIEUDENOUX407**
- 3 Respond to activity



When speaking of data dissemination, what are the main issues/drawbacks/points to watch/blocking factors according to you?



An introduction



We have spent the last hours looking at:

- how to analyse needs of users and stakeholders
- how to present data well (...and badly)
- some key example from our agency
- and now, how to best communicate this information most effectively

Data dissemination/communication



- Amount of effort put into displaying information is **wasted** if not communicated well
- Intended to inform and also encourage inquiry and debate
- There is not one best method for communicating information, each is tailor-made for the recipient

Data dissemination/communication



Before going into detail:

- At AURA-EE we wish to distribute information
- This information is then digested and reused by the reader
- If the end-user doesn't understand it well, they can't use it for their own purposes
- Which is one key purpose of an energy agency

Types of data dissemination



- Emails
- Newsletters
- Social Media
- Radio + TV + Newspaper
- Executive Summaries
- Phone calls + SMS
- Long-form Reports
- Websites
- Presentations/webinars
- Datasets
- Workshops
- Paid advertising

Choosing a mode of communication



When deciding which type of data dissemination, multiple criteria need to be taken into account, for example:

- Timeframe
- Budget
- Knowledge/expertise
- Needs of the end-user
- Replication requirements

Going beyond data



Sometimes, data is not enough!

- Applications/API/Website (e.g. TerriSTORY®)
- Events (meeting end-users)
- Serious games (e.g. [ClimaSTORY](#))
- Research

You'll meet difficulties



Because:

- Difficult to understand
- Always hypotheses/choices leading to differences with other tools
- Never enough!

But hopefully, it will work!



Some recent feedbacks on TerriSTORY®

"I find the tool extra, easy to use and the graphic representation very didactic; useful for us and for our elected representatives."

"I was absolutely blown away by the TerriStory tool."

Thank you!

*Matthieu Denoux, PhD
TerriSTORY® Project Manager
Auvergne Rhône-Alpes Énergie Environnement
matthieu.denoux@auvergnerhonealpes-ee.fr*



Appendix

“Impact Chain”

