Creating Infographics

MetaMeta
Lenneke Knoop

Workshop FBFS
April 20th, 09:00 – 12:00

Today's program

1. Introduction
2. Infographics: Data visualization
3. Infographics: The process
4. Infographics: Storytelling
5. Creating infographics
6. Group work
7. Reflections

Researchers and infographics

– Everybody likes simple language.. More often asked in journals.. Is there a trend?

– Examples of famous researchers sharing stories, rather than scientific articles
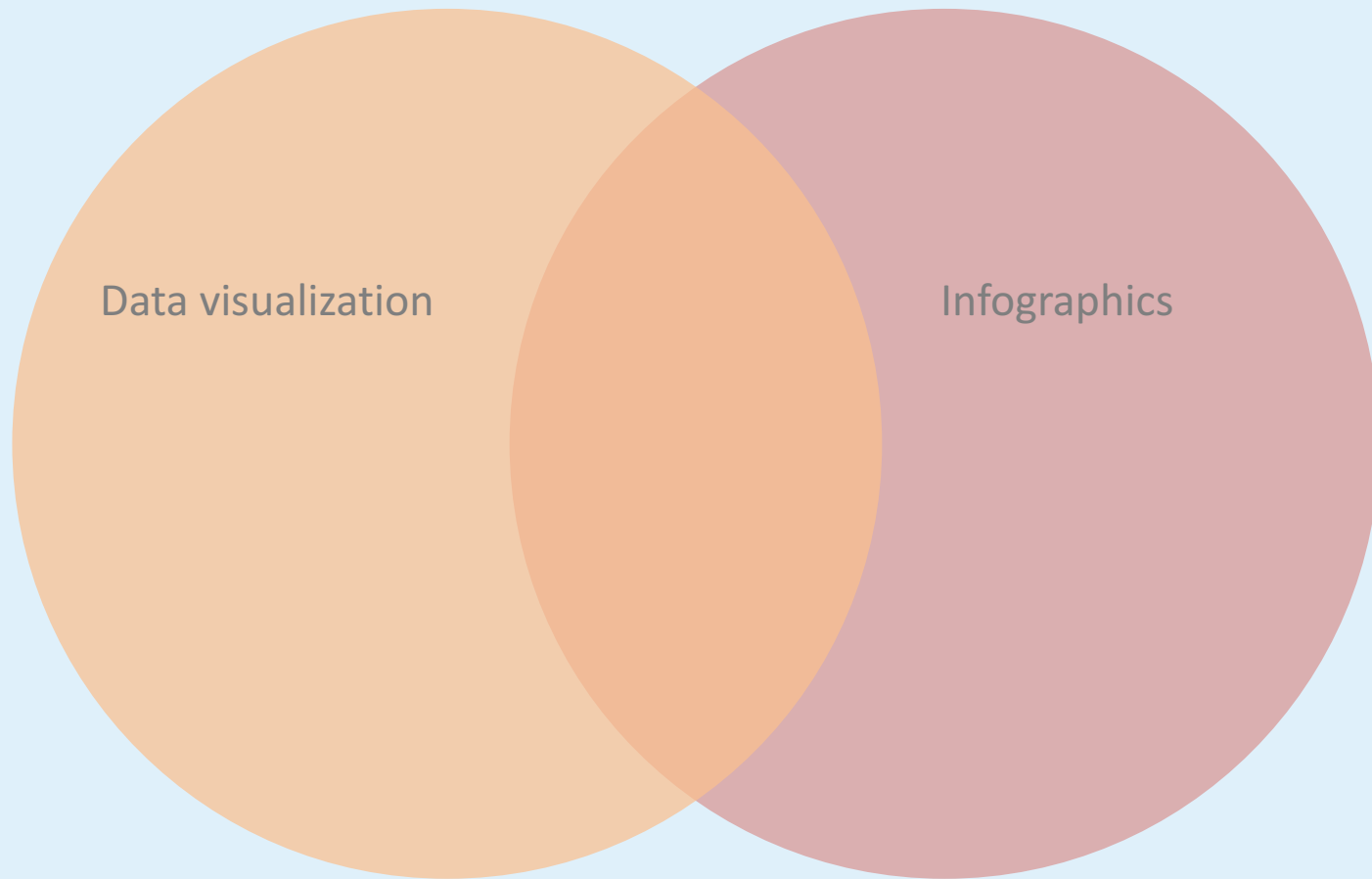
– Visual abstracts

SCIENTIFIC AMERICAN.

413 results for

"INFOGRAPHIC"

2. Infographics: Data visualization

Data visualisation vs infographic
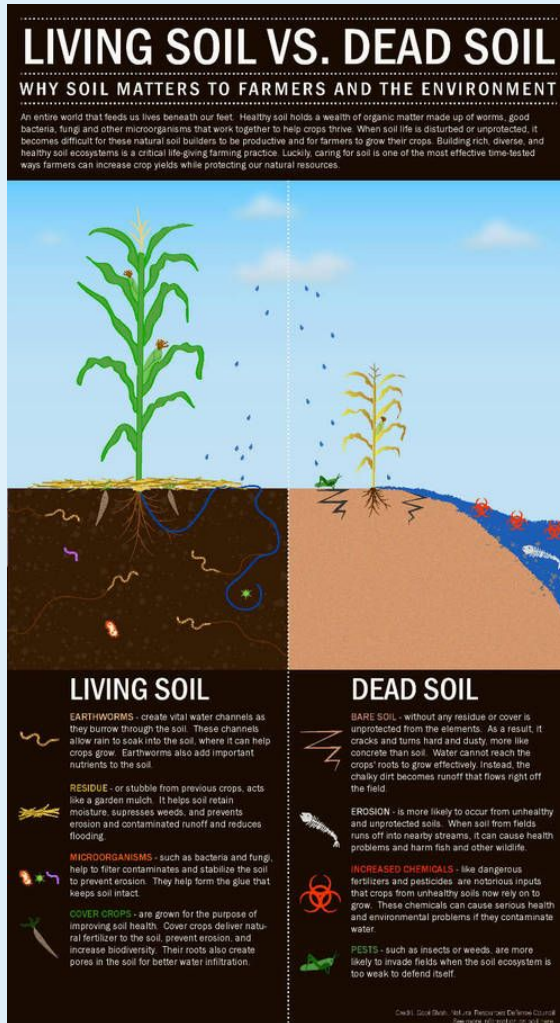
Data visualization

Infographics

Data visualisation is…

- – Quantifiable information in the form of numbers
- – Data visualisation is objective,
- – created for the purpose of making sense of the data,
- – or to make data more accessible.
- – Likely to be created automatically
- – Transferable process to other data sets
- – Graphic design is often less important

Country Name	1960	1961	1962	1963
Aruba	54208	55435	56226	56(
Andorra	13414	14376	15376	16
Afghanistan	8994793	9164945	9343772	9531!
Angola	5270844	5367287	5465905	5565
Albania	1608800	1659800	1711319	1762(
Arab World	92495902	95041593	97691498	100438:
United Arab Emi	92612	100985	112240	125:
Argentina	20619075	20953079	21287682	21621:
Armenia	1867396	1934239	2002170	2070
American Samoa	20012	20478	21118	21:

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djia ▬
+120%
+100%
+80%
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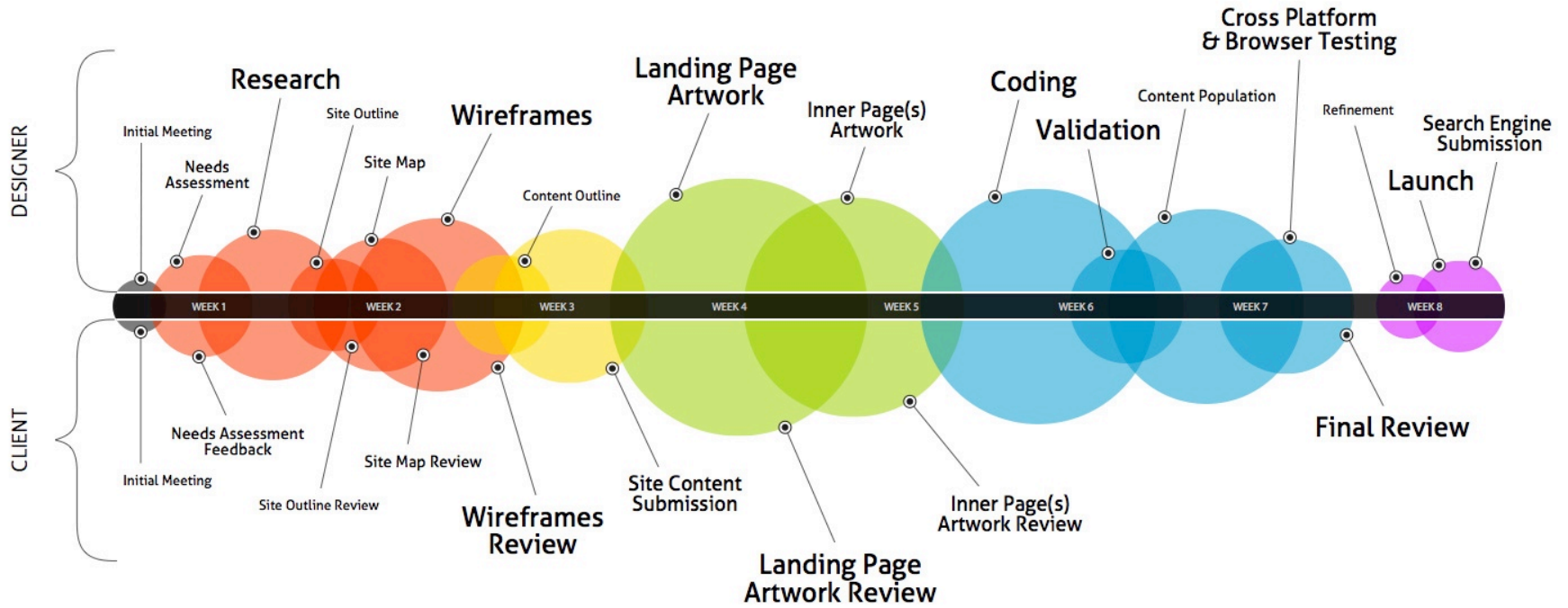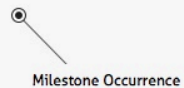# Infographics…

- Contain information presented within context
- Are designed to tell or explain a specific story
- Are intended for a specific audience
- Are subjective
- Are content enriched by illustrations, icons and other graphical flairs - matching your audience and purpose (journal / website / poster)
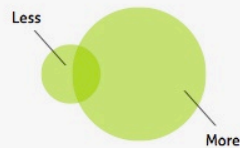
A Web Site Designed

MILESTONES, INVOLVEMENT, IMPORTANCE & TIMELINE

DESIGNER

Initial Meeting

Needs Assessment

Research

Site Outline

Site Map

Wireframes

Content Outline

Landing Page Artwork

Inner Page(s) Artwork

Coding

Validation

Content Population

Cross Platform & Browser Testing

Refinement

Launch

Search Engine Submission

WEEK 1 · WEEK 2 · WEEK 3 · WEEK 4 · WEEK 5 · WEEK 6 · WEEK 7 · WEEK 8

CLIENT

Initial Meeting

Needs Assessment Feedback

Site Outline Review

Site Map Review

Wireframes Review

Site Content Submission

Landing Page Artwork Review

Inner Page(s) Artwork Review

Final Review

MILESTONES

Milestone Occurrence

INVOLVEMENT

Less

More

IMPORTANCE

Average

Greater

PHASE

Initial Contact · Planning · Content · Design · Development · Launch

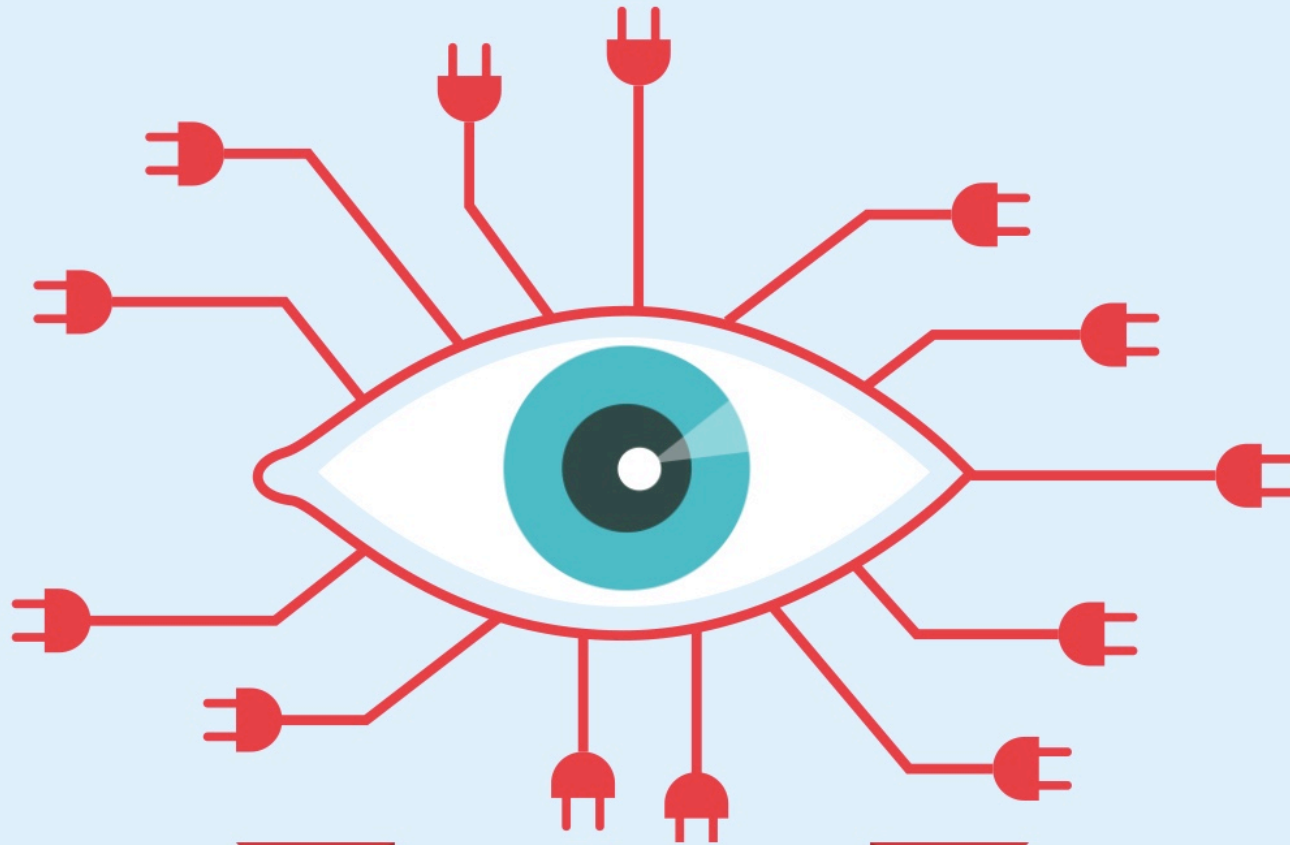# Figure 3.1. Institutional mapping of roles and responsibilities for water resources management in Mexico
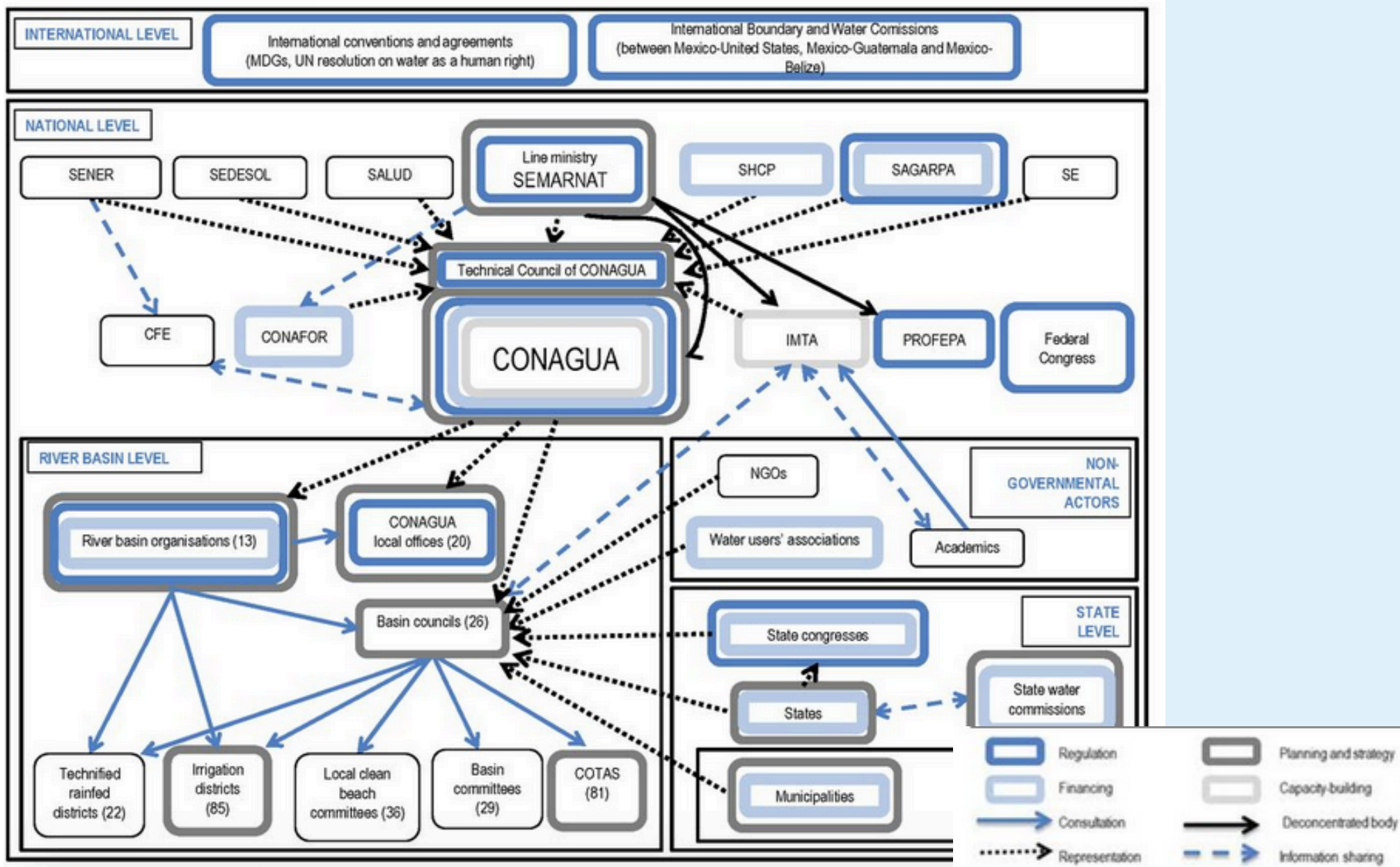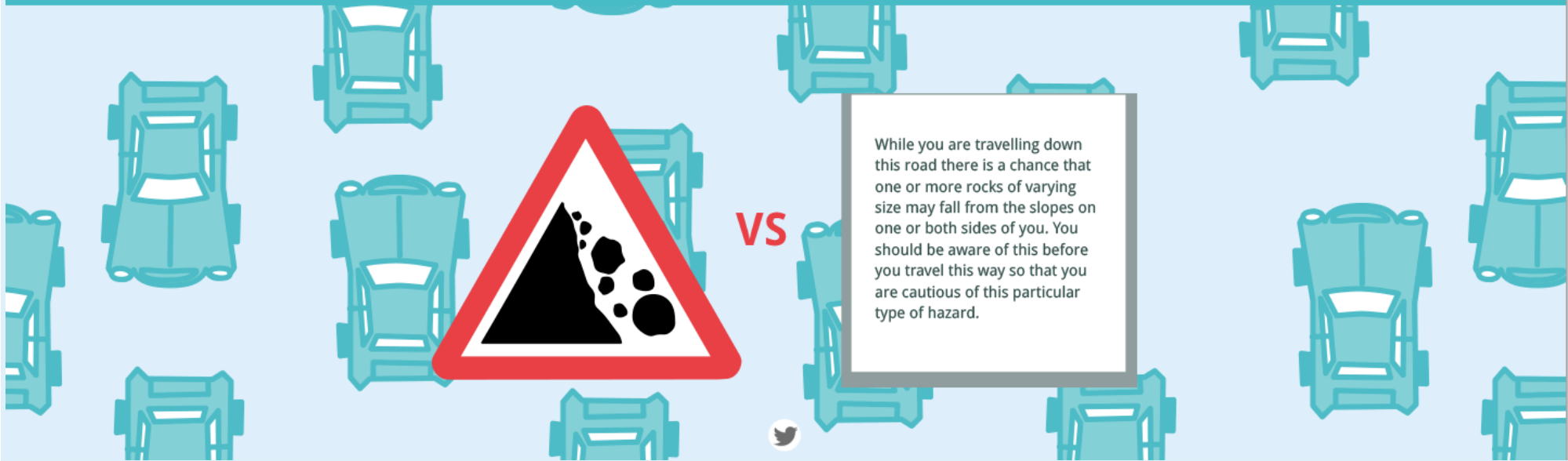
– Add another good example

The power of images?

This is because we are 'visually wired'

It only takes us 150ms for a symbol to be processed + 100ms to attach a meaning to it [7, 8]

VS

While you are travelling down this road there is a chance that one or more rocks of varying size may fall from the slopes on one or both sides of you. You should be aware of this before you travel this way so that you are cautious of this particular type of hazard.
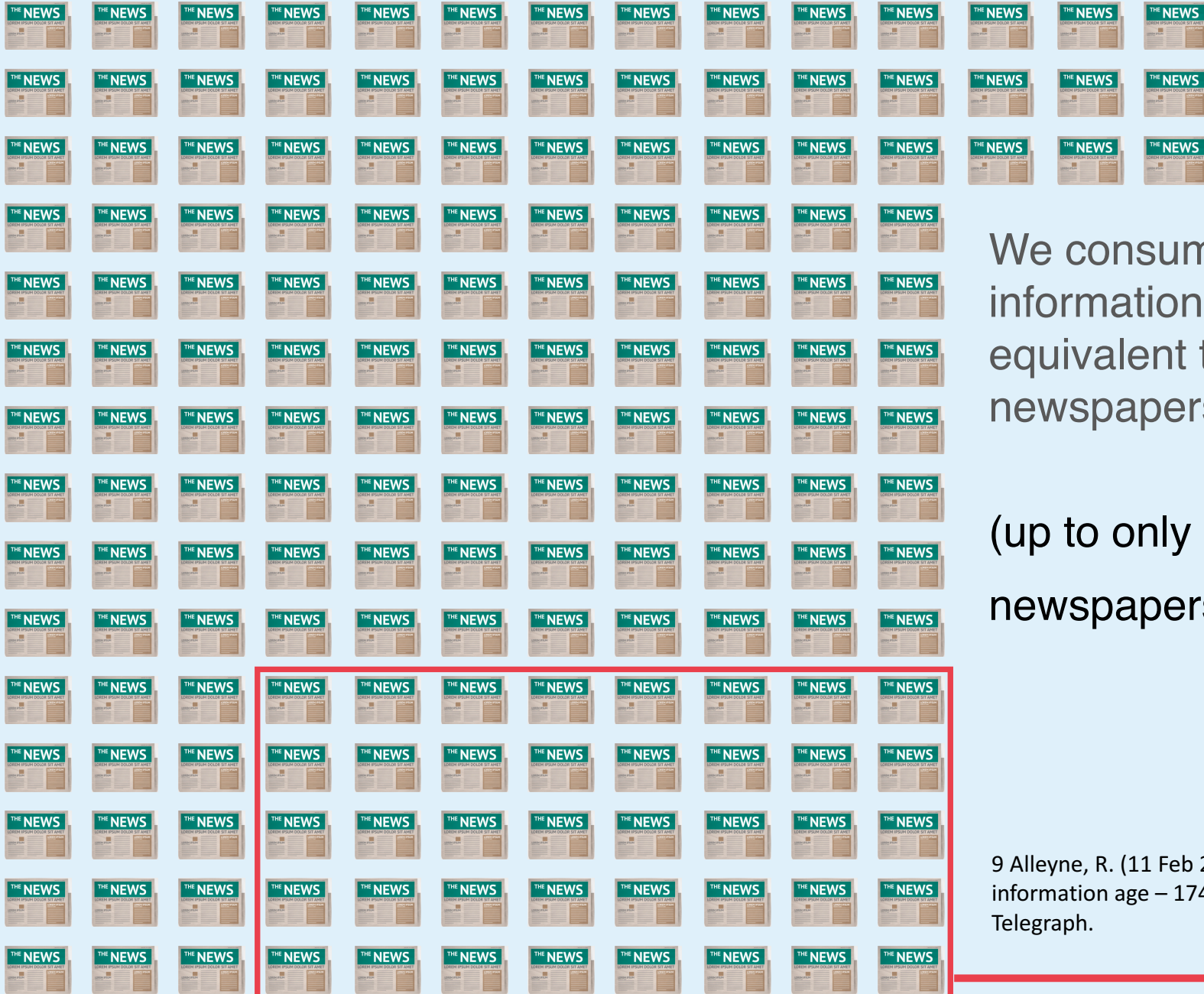
visual by neomam.com

Informavores

We're all informavores now, hunting down and consuming data as our ancestors once sought wooly mammoths and witchetty grubs."

- Rachel Chalmers

We consume information equivalent to 174 newspapers per day.

(up to only 40 newspapers in 1984)

9 Alleyne, R. (11 Feb 2011). Welcome to the information age – 174 newspapers a day. The Telegraph.

Information overload

We receive
5x
as much information
today as we did
in 1986. [9]

34 gigabytes
or 100,500 words
– the amount of information
we consume outside of work
on an average day. [10]

On average
users only read
28%
of words per visit. [11]

Infographics counter information overload because...

They're more engaging

80%

Researchers found that colour visuals increase the willingness to read by 80%.
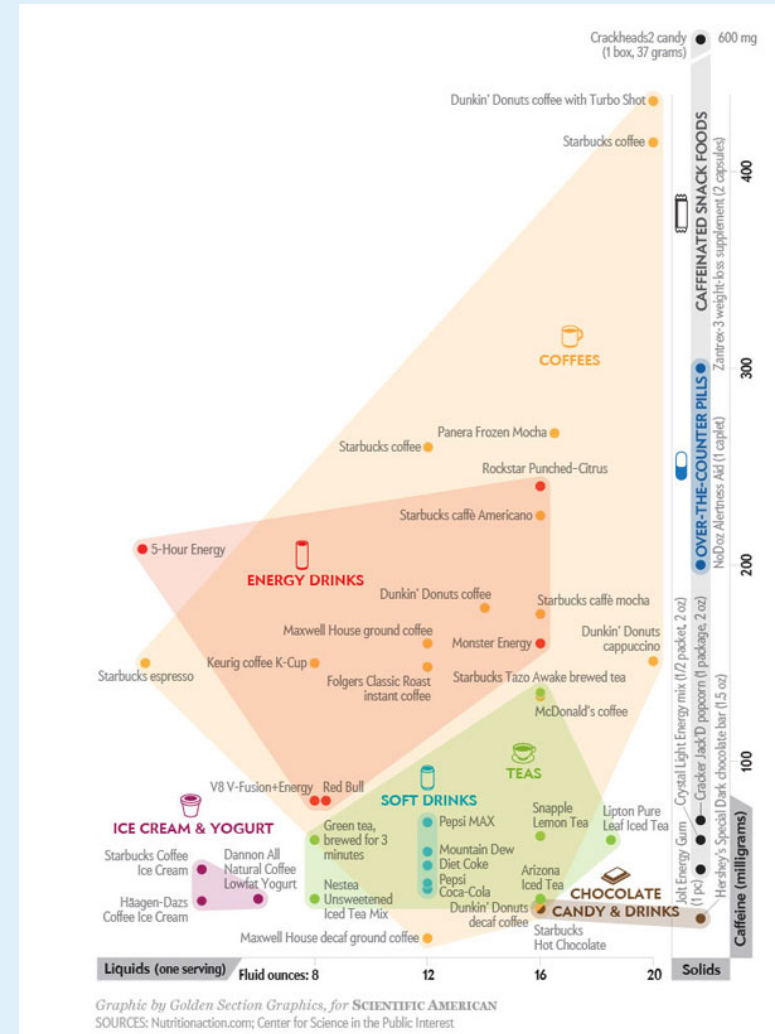[12]

visual by neomam.com

3. Infographics: The process

Part 1: What to ask?

– What is the purpose?

– Which data am I going to use?

– Why will people share it (who are they?)

– How can I maximise that?

Data: make choices

– Challenge: find a balance

Graphic by Golden Section Graphics, for SCIENTIFIC AMERICAN
SOURCES: Nutritionaction.com; Center for Science in the Public Interest

Find your hook

- What is the take away for the header?
- Use this as hook / focal point
- Build your story around it

Tell your story

introduction / foundation

Ah-Ha!
The Main Event

conclusion / call-to-action

Classic example of clear storyline: http://infographicjournal.com/wp-content/uploads/2016/04/Ademero_Impacts-of-a-Paper-Based-System_infographic1.png

Creating Infographics

1. Choose a format
2. Build a wireframe
3. Visualise as much as possible
4. Strengthen your hook visually
5. Reflect and revise

Be creative

Choose a format

12

PRACTICAL

Flowchart How-to
WHICH NEW SEASON SHOE ARE YOU? START What's Your Favorite CITY?

World Maps / Countries That...
INTERNET CENSORSHIP WORLD MAP

How to Guides
HOW TO DISAPPEAR ONLINE

Illustrated How-Tos
The Pros of a Tech-free Vacation

The Guide to...
A VEGETABLE GROWING CHEAT SHEET

Photo Guides
Herb Guide to Cooking
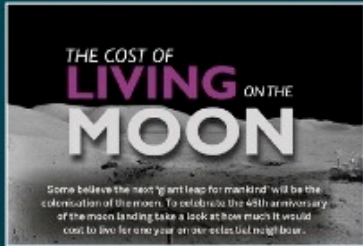
EDITORIAL

Visual Answer to a Question
When will Google fiber take over the World? 120 Mb

Versus Infographic
TECH COLD WAR FACEBOOK VS. GOOGLE

Statement with Proof
THE COST OF LIVING ON THE MOON
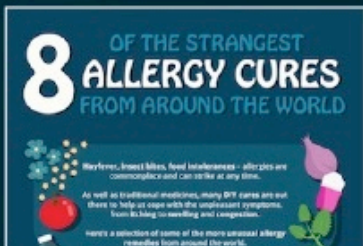
SOCIAL

50 Facts
50 AMAZING FACTS ABOUT THE

Lists Using Illustrations
8 OF THE STRANGEST ALLERGY CURES FROM AROUND THE WORLD

Visual Map
Irish Chefs & their world cup dishes

Often used starting points

Visual Article

Makes a piece of writing more visual

Best used to:

• cut down on text

• make a plain article more interesting

• increase sharing potential

Versus

Compares two things in a head-to-head study
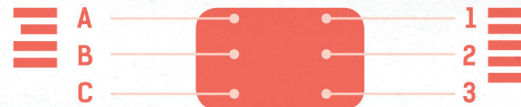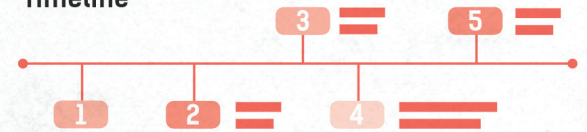
Best used to:

• highlight differences between two similar things

• highlight similarities between two unlike things

• prove one option is superior/inferior to the other

Timeline

Tells a story through a chronological flow

Best used to:

• show how something has changed over time

• make a long, complicated story easier to understand

• show how one thing leads to another

Map

Showcases data trends based on location

Best used to:

• compare places and cultures via setting-centric data

Flowchart
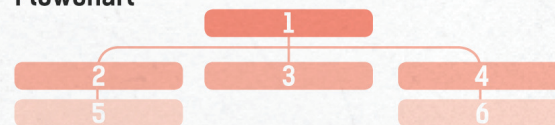
Provides a specialized answer to a question via reader choices

Best used to:

• provide personalized answers for readers

• showcase how multiple situations can reach the same conclusion

Data Visualization

Communicates data through charts, graphs, and/or design

Best used to:

• make data-driven arguments easier to understand

• make facts and statistics more interesting to absorb

Build a wireframe

– Lay out your concept

– Make a sketch of the hierarchy

– Use this step to have your concept reviewed

Visualise: basic principles

Unity – harmony
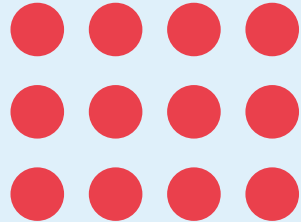
Scale - proportion
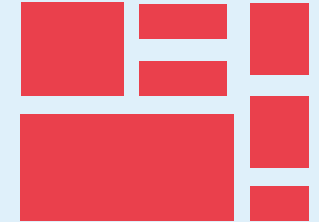
Balance
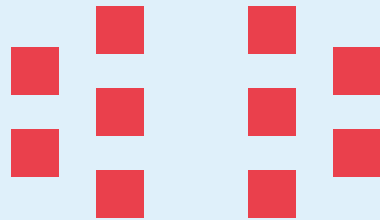
Dominance - emphasis
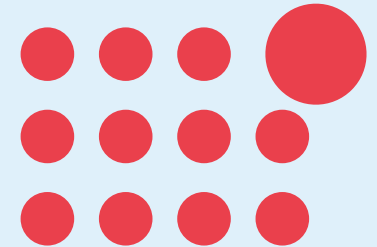
Hierarchy

Similarity - contrast
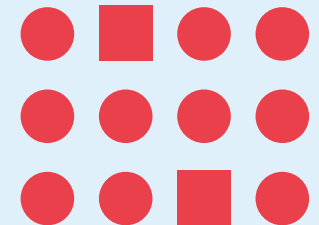
Forests and family farms together sustaining livelihoods and landscapes

FOREST AND FARM PRODUCER ORGANIZATIONS CONNECT, ENABLE AND AMPLIFY OPPORTUNITIES

6 MIND-BLOWING Social Media Statistics

And What They Mean For Your Marketing Strategy

For More Insights Visit www.bit.ly/6strategies
And Download The Free White Paper.

1.

95% of all Facebook wall posts are NOT answered by brands.

Write a comment...

Make It Work For You
Designate a response team to handle common inquires and concerns

2.

Pinterest is projected to account for 40% of social media driven purchases.

$$$ $$$
$$$

Make It Work For You
Include prices - pins with prices are 36% more likely to perform better

3.

The average user spends 20 minutes per visit on Facebook.

Make It Work For You
Post 🕐 or 🕐🕐 times per day
The half-life of a Facebook post is 18 hours

4.

13% of consumers follow a brand on social channels because of their content.

Make It Work For You
Write what you know - expertise can be translated into highly valuable content assets

5.

Twitter handles 32 billion search queries per month.

MORE THAN BING AND YAHOO COMBINED

Make It Work For You
Practice targeted listening

6.

20% of Google searches each day have never been searched for before.

Google

Make It Work For You
Explore analytics for content and keyword ideas

For More Great Resources
On Social Marketing Strategies,
Visit www.AwarenessNetworks.com

awareness
social marketing software

Use colours

– Limit your colour palette

– Stick to 3 to 6 colours

– Available tools e.g. www.colourlovers.com

Fonts

Fonts are great to spice up your infographic
– Think about (contrast in) style, size, weight
– Appropriateness
– Avoid small differences
– Functionality / interpretation

PLEASE KEEP
THE DOOR
CLOSED!!!
THANK YOU!!!

Please don't use
Comic Sans—we
are a Fortune 500
Company, not a
Lemonade Stand.

– Add good / bad examples

Visualize the hook

5 REASONS

STOPPING MANGROVE DEFORESTATION MAKES A WHOLE LOT OF SENSE
FOR CLIMATE CHANGE MITIGATION IN INDONESIA

1. INDONESIA HAS A WHOLE LOT OF MANGROVES

Indonesia has:
2,900,000
HECTARES OF MANGROVE FORESTS
AN AREA ALMOST THE SIZE OF
Belgium

Almost ¼ of all mangrove ecosystems on earth

Mangrove coverage, Indonesia and region, as of 2010.

Belgium = 3,053,000 ha

Map adapted from: earthobservatory.nasa.gov

2. MANGROVES STORE A WHOLE LOT OF CARBON

Per hectare, Indonesia's mangrove forests store more than **5X** the carbon of upland forests

Out of all carbon stored globally in coastal ecosystems, Indonesian mangroves store: **1/3**

3.14 billion Total carbon stored in Indonesian mangroves, in tonnes

Number of years it would take Indonesia to emit that much carbon in fossil fuel usage, at 2011 levels: **20**

3. A WHOLE LOT OF MANGROVES ARE DESTROYED EVERY YEAR

52,000ha of Indonesian mangroves disappear every year, an area the size of **New York City** every 18 months

40% of Indonesian mangroves were destroyed in the last 3 decades, mainly due to **aquaculture**

? WHAT IS AQUACULTURE?
Aquaculture is the *farming* of aquatic organisms. Any climate change mitigation efforts involving mangroves should include well-managed and conservative aquaculture development, as it plays an important role in sustainable coastal livelihoods.

4. THIS DEFORESTATION RELEASES A WHOLE LOT OF CARBON

Annual emissions from Indonesian mangrove destruction:
190,000,000 CO₂-EQ

That's the same amount of emissions as if **every car in Indonesia drove around the world twice** (at 2011 Indonesian passenger car levels)
9.5M x x 2

42% of annual global emissions from the destruction of coastal ecosystems are from the destruction of Indonesian mangroves.
'Coastal ecosystems' includes marshes, mangroves & sea grasses

5. HALTING MANGROVE DEFORESTATION COULD MAKE A WHOLE LOT OF DIFFERENCE TO CLIMATE CHANGE

Stopping mangrove destruction could meet **1/4** of Indonesia's **26%** emissions reduction target for 2020...

...equivalent to **40,000,000** fewer cars on the road
x40M

FAST FACTS: MANGROVE FORESTS

MANGROVE CARBON STORAGE:
1,083,000 kg/Ha

Living biomass 20%

2% Dead & downed biomass

Soil 78%

WHAT IS A MANGROVE FOREST?
Mangroves are a family of evergreen trees and shrubs that live on the coast, in the intertidal zone of some tropical and subtropical areas. Mangrove forests are best known for their dense tangle of roots, which can give the appearance of trees on stilts in the water.

MANGROVE FORESTS PROVIDE MANY VALUABLE ECOSYSTEM SERVICES, SUCH AS:

MILLIONS OF MIGRATORY BIRDS depend on mangroves for food during their journeys

Up to **75%** of tropical commercial fish species spend part of their lives in mangroves

REGULATION of factors such as pollution, flood and erosion

References:

Illustration & design: Jim O'Neill

Cut emissions, not mangroves: Indonesia's best hope for slowing climate change
blog.cifor.org/31112

Available for download:
http://dx.doi.org/10.1038/nclimate2734

Read more:
blog.cifor.org/wetlands

Additional references:
• nature.com/articles/ngeo1123
• earthobservatory.nasa.gov/IOTD/view.php?id=47427
• epa.gov/cleanenergy/energy-resources/calculator.html
• quandl.com/data/STATS_INDONESIA/NUM_MOTOR_VHCL_TYPE_INDONESIA-Number-of-Motor-Vehicles-by-Types-Indonesia

• databank.worldbank.org/data/reports.aspx?source=2&country=BEL
• data.worldbank.org/indicator/EN.ATM.CO2E.KT/countries?order=wbapi_data_value_2011+wbapi_data_value+wbapi_data_value-last&sort=desc
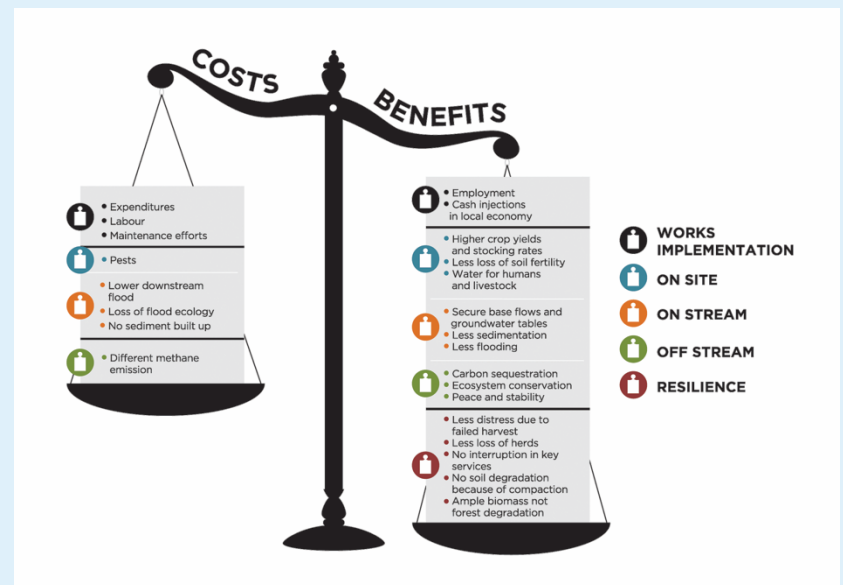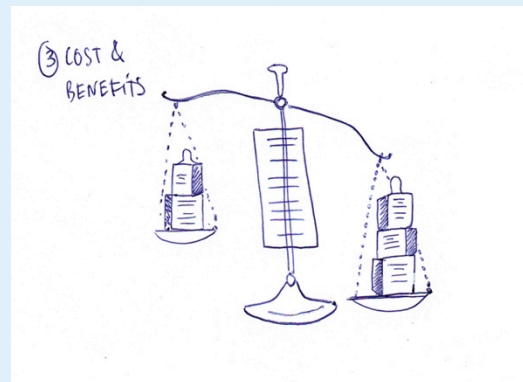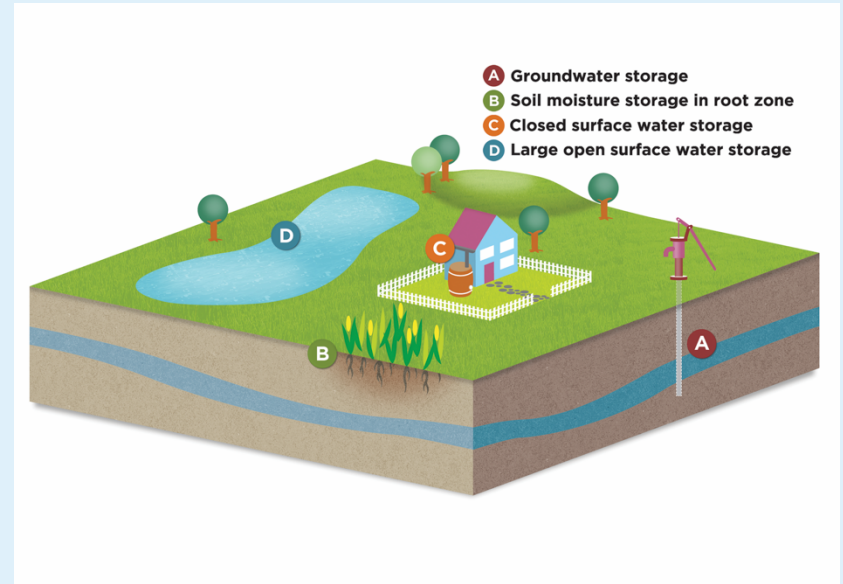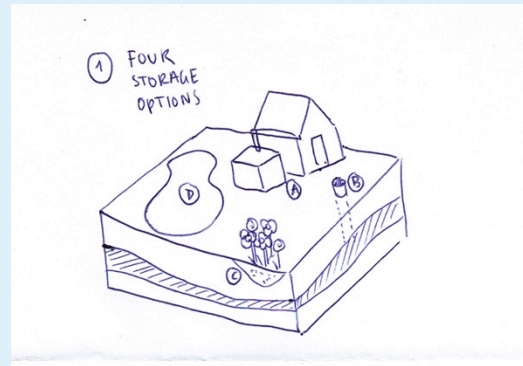
Images

– Wikimedia

– Freepik

– Shutterstock

– Vector images vs non vector

Style

– When you make a series style is important
– Create your own

Reflect and revise

A Groundwater storage
B Soil moisture storage in root zone
C Closed surface water storage
D Large open surface water storage

① FOUR STORAGE OPTIONS

③ COST & BENEFITS

COSTS

BENEFITS

- Expenditures
- Labour
- Maintenance efforts

- Pests

- Lower downstream flood
- Loss of flood ecology
- No sediment built up

- Different methane emission

- Employment
- Cash injections in local economy

- Higher crop yields and stocking rates
- Less loss of soil fertility
- Water for humans and livestock

- Secure base flows and groundwater tables
- Less sedimentation
- Less flooding

- Carbon sequestration
- Ecosystem conservation
- Peace and stability

- Less distress due to failed harvest
- Less loss of herds
- No interruption in key services
- No soil degradation because of compaction
- Ample biomass not forest degradation

WORKS IMPLEMENTATION

ON SITE

ON STREAM

OFF STREAM

RESILIENCE

Test and revise

- Discuss your infographic with others, does it convey the right message, is the infographic clear?
- Make a test-print
- Think about how do you want to publish
- Think about file size
- See if everything is in place
- Clean up the design from small errors
- Make sure you include proper credits

Online tools

– There are many

– THE best tool does not exist

– Tools come and go

– An (elaborated!) overview can be found here: http://www.coolinfographics.com/tools/

Work with easel.ly

- http://www.easel.ly/
- Sign up, create a free account
- Help centre: http://help.easel.ly/help_center
- Choose formats or start from scratch
- If you have data you can insert directly from excel (note: if exceldata is the majority of your infographic, choose Piktochart)

5 key dimensions of water security

Jakarta's water security

credits of pictures

Our inspiration & references

- Americanscientist
- Newsilike.in
- Piktochart (online tool similar to easel.ly)
- Data visualization tools and resources
- http://www.landscapes.org/glf-2014/data-landscapes-infographic-data-visualization-competition/data-visualization-tools-resources/
- Gap minder
- http://www.gapminder.org/downloads/
- Amazing maps on facebook (rethink conventional maps)
- https://www.facebook.com/MapsAreAmazing/
- 90 best infographics
- http://www.creativebloq.com/graphic-design-tips/information-graphics-1232836
- https://www.in60seconds.nl/blog/