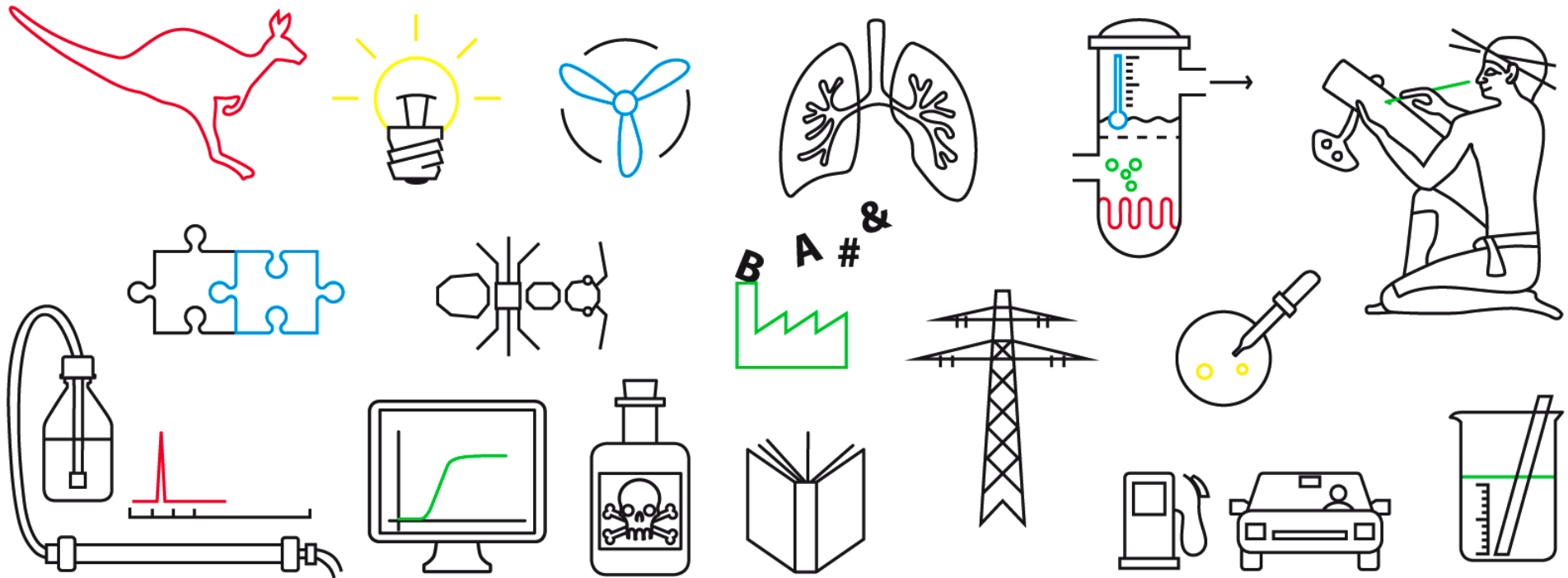




- _ What is your target group?
- _ What media do you want to use?



- _ Typography
- _ Colours
- _ Structuring elements (e. g. shapes, patterns, icons)
- _ Visuals (graphics, renderings or photography)
- _ Layout and grids – for consistent spatial organization
- _ Hierarchy techniques – using size, weight, or color to guide
- _ White space – as a conscious design tool attention
- _ Corporate design guidelines (e. g. if publications is funded)

Before thinking about how to communicate something, make sure you're clear on what you want to communicate.

- _ List your key points as bullet points or main clauses.
- _ Identify what can be communicated by text.
- _ Highlight where visuals can support the message.

Text work is often underestimated – yet good text always pays off.

- _ Structure your content into clear, manageable sections with headlines and copy text.

Headlines make people start reading a text, but the copy is what keeps them reading and what conveys the content.

- _ Write text so that outsiders understand it. Imagine you had to read it aloud to others.

- _ Keep it concise. Every word should have a reason to be there.

- _ Use an appropriate tone: friendly, professional, playful?
Match it to your message and your target group.

”A picture is worth a thousand words.“

This is a common saying, but it is misleading.

- _ Word and image are perceived in different ways.

- _ Sometimes they can’t convey the same information but they can complement each other.

What is the purpose of your visual?



Report on german forests; image showing cellular wood structure.



Report on digitization; metaphor “Funding pot” highlighting where funding is recommended to do research.

4 Lebensbereiche gestalten: Ernähren, Bewegen, Wohnen

Kasten 4.1-1

Wie sieht eine gesunde und ökologisch nachhaltige Ernährung aus?

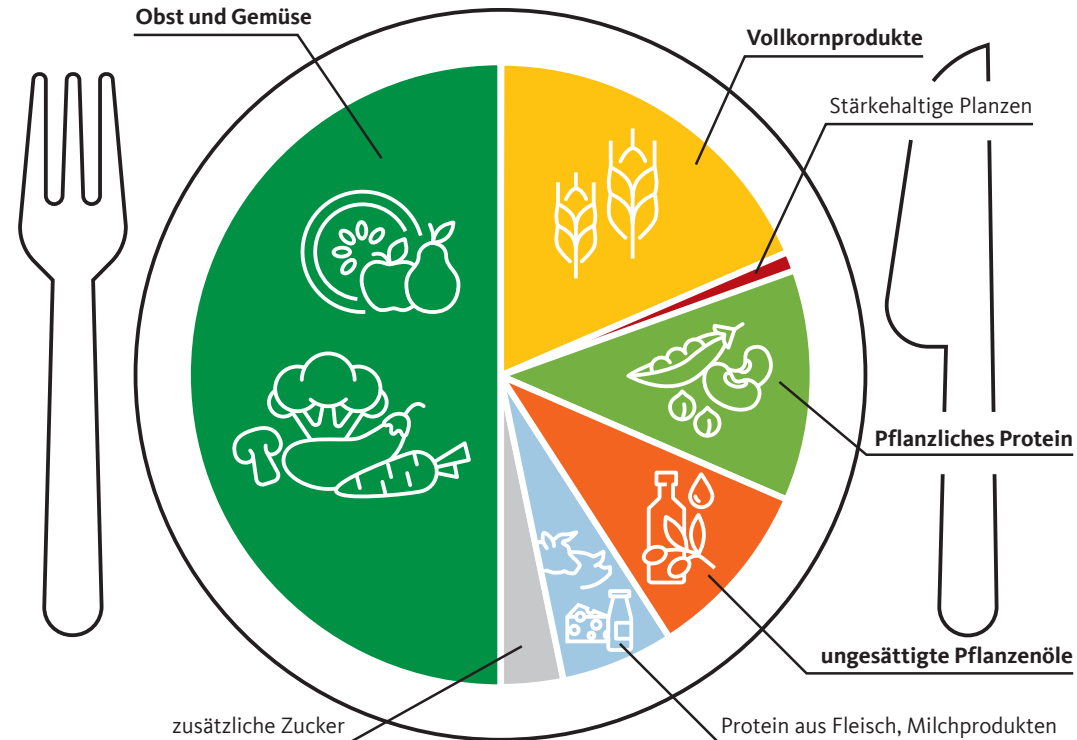
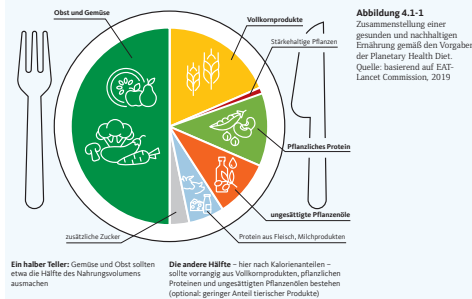
„Eine gesunde Ernährung ist gesundheitsfördernd und beugt Krankheiten vor. Sie liefert eine ausreichende, aber nicht überschüssige Menge an Nährstoffen und gesundheitsfördernden Substanzen aus nährhaften Lebensmitteln und vermeidet den Verzehr von gesundheitsschädlichen Substanzen“ (Neufeld et al., 2021).

Obwohl die Grundzüge einer gesunden Ernährung allgemein gültig sind (Willett et al., 2019; www.who.int/news-room/fact-sheets/detail/healthy-diet), unterscheiden sich Ernährungs- und Nährstoffbedarfe je nach Alter, Geschlecht, Gesundheits- oder Krankheitsstatus, nach den Voraussetzungen körperlicher Aktivität und nach bestimmten Lebensphasen wie beispielsweise während Schwangerschaft und Stillzeit. Im Allgemeinen soll gesunde Ernährung dazu beitragen, die individuelle Gesundheit (im Sinne der WHO-Definition von Gesundheit; Kap. 2.2.4) zu erhalten und zu verbessern. Der Deutschen Gesellschaft für Ernährung (DGE) folgend berücksichtigt eine gesunde Ernährung die folgenden zehn Regeln: (1) Lebensmittelvielfalt genießen; (2) Gemüse und Obst – nimm „5 am Tag“; (3) Vollkorn wählen; (4) mit tierischen Lebensmitteln die Auswahl regieren; (5) gesundheitsfördernde Fette nutzen; (6) Zucker und Salz einsparen; (7) am besten Wasser trinken; (8) schonend zubereiten; (9) achtsam essen und genießen; sowie (10) auf das Gewicht achten und in Bewegung bleiben (DGE, 2017). Diese Empfehlungen werden aktuell überarbeitet und sollen künftig auch die Dimensionen Umwelt und Soziales mit abdecken.

Wenngleich gesunde Ernährungsmuster häufig auch ökologisch nachhaltig sind, ist dies nicht immer der Fall (Dwivedi et al., 2017). So sind bestimmte Obst- und Gemüsearten,

Hülsenfrüchte und Nüsse zwar aufgrund ihrer Nährstoffe als gesund anzusehen, aber in wasserarmen Regionen aufgrund teils hohen Wasserverbrauchs nicht ökologisch nachhaltig anzubauen. Umgekehrt sind Lebensmittel, die ökologisch nachhaltig produziert werden, nicht zwingend gesund. Insbesondere bei Lebensmittelinnovationen wie hoch verarbeiteten Fleischersatzprodukten oder generell alternativen Proteinquellen fehlen bislang Langzeitstudien zu gesundheitlichen Auswirkungen.

Die Planetary Health Diet – Empfehlungen für gesunde und ökologisch nachhaltige Ernährung
Die Empfehlungen der EAT-Lancet Commission on Food, Planet, Health zeigen den dringenden Bedarf einer Transformation des globalen Ernährungssystems auf (Willett et al., 2019). Die Planetary Health Diet (Abb. 4.1-1) gibt dabei mit der Empfehlung einer universellen Referenzkost einen weltweit flexibel anwendbaren Rahmen vor, dessen Umsetzung die Gesundheit der Menschen und des Planeten gleichermaßen schützt und eine gesunde und ökologisch nachhaltige Ernährung bis Mitte des Jahrhunderts für rund zehn Mrd. Menschen ermöglicht. Mit einer konsequenten Umsetzung der Planetary Health Diet könnten weltweit 11 Mio. vorzeitige Todesfälle pro Jahr verhindert werden (Willett et al., 2019). Die beiden Schwerpunkte der Planetary Health Diet liegen zum einen auf gesunden Ernährungsweisen und zum anderen auf der nachhaltigen Nahrungsmittelproduktion unter Vermeidung von Verlusten. Um diese Empfehlungen weltweit und regional spezifisch umzusetzen, ist eine grundlegende Änderung des überwiegend westlichen Ernährungsverhaltens, das mittlerweile in vielen anderen Ländern übernommen wird, notwendig. Es sollten mehr Obst, Gemüse, Hülsenfrüchte und Nüsse sowie deutlich weniger Zuckerzusätze und rotes Fleisch verzehrt werden. Nationale Ernährungsempfehlungen sollten entsprechend angepasst werden.



Ein halber Teller: Gemüse und Obst sollten etwa die Hälfte des Nahrungsvolumens ausmachen

Die andere Hälfte – hier nach Kalorienanteilen – sollte vorrangig aus Vollkornprodukten, pflanzlichen Proteinen und ungesättigten Pflanzenölen bestehen (optional: geringer Anteil tierischer Produkte)

Frühe et al.

Bacteria in Salmon Aquaculture Sediments

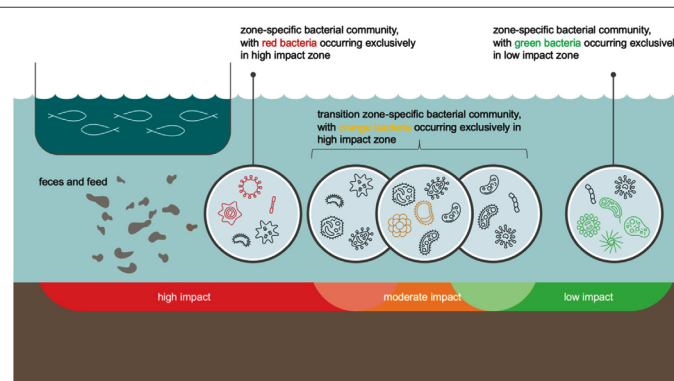
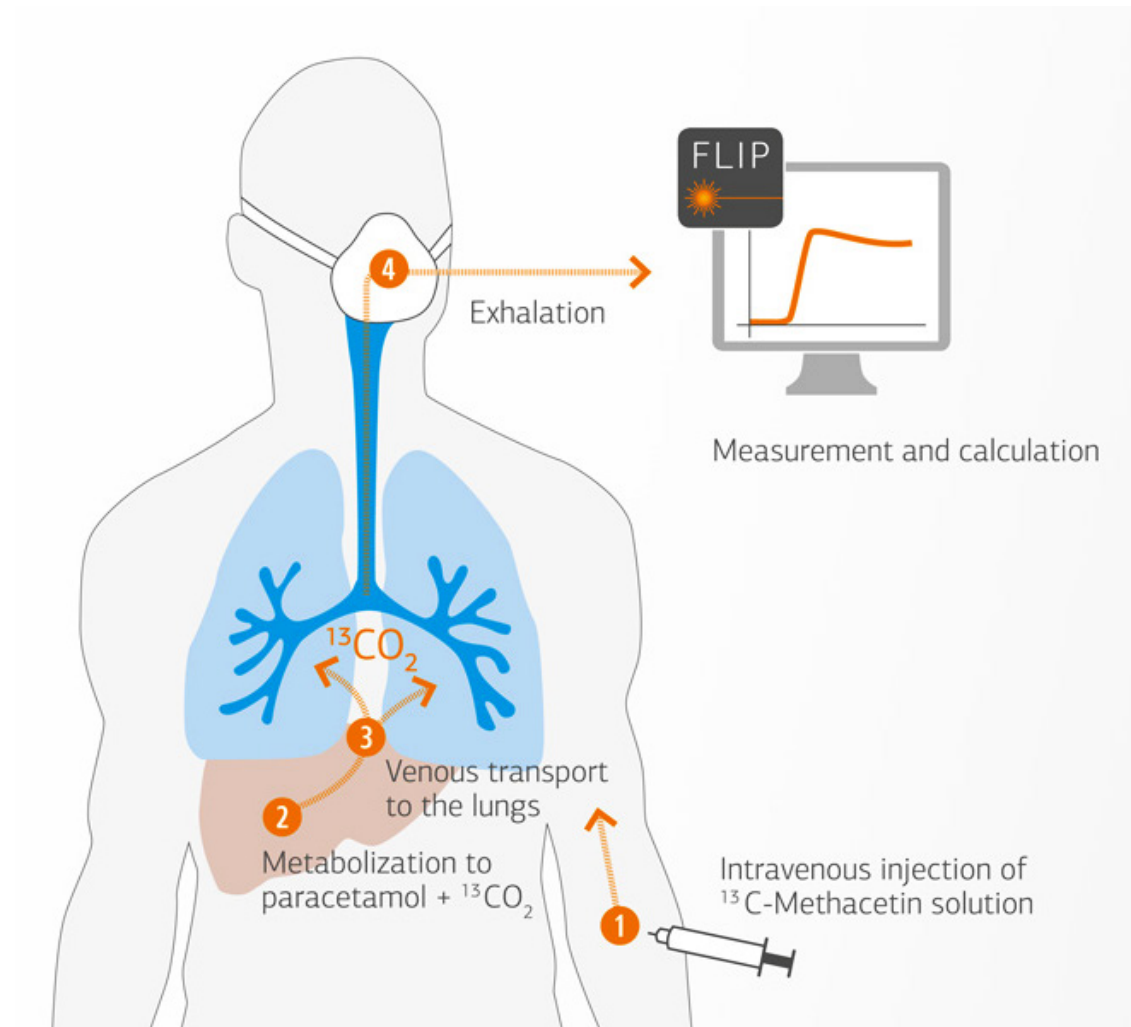


FIGURE 5 | Conceptual graphic of changes in bacterial community composition along an aquaculture-related impact gradient (the “benthic cage aquaculture footprint”). The graphic represents especially the difficulties in identification of bacterial taxon groups that are typical of moderate impact conditions (orange benthic zone). This zone is a transition from high (in red) to low (in green) benthic impact and, thus, a melting pot that includes bacteria from all impact categories. Only few bacteria (marked in orange) have such a narrow ecological niche that they do not extend out of the transition zone into regions with high or low impact. On the other hand, some bacteria that are more typical of low or high impact conditions have an ecological tolerance to environmental conditions, which allows them to extend from regions of low or high impact, respectively, to regions of moderate impact. In environmental monitoring, relative abundance distributions of all bacterial taxon groups at each sampling site are considered, which, in concert, help to identify moderate impact conditions. Bacteria that are exclusive for high, moderate, and low impact conditions are visualized by their color code for each of these impact categories (red, orange, and green, respectively). Bacteria marked in black are bacteria that occur across two impact categories in the transition zones.

demonstrates that lower taxon ranks within this family are better differential indicators for benthic disturbance. Vibrionaceae ASVs could be assigned to the to five species (*Aliivibrio fischeri*, *Photobacterium angustum*, *Photobacterium rosenbergii*,

anaerobic degradation of organic matter in marine systems (Schwarz et al., 2008). Species of the family Shewanellaceae, which are widely distributed in marine habitats (Dikow, 2011), are facultative anaerobes, which under oxygen-depletion use, for



Explaining how a liver test works.



Survey asking german companies about their attitude towards climate protection and digitization.

Sans Serif

Typography

Serif

Typography

Headlines are catchy in Sans Serif

Reading is body work. Serif type enhances legibility of letters and words by providing an additional cue to the location of the stroke ends. Serifs may help the reader read faster and avoid fatigue. Serifs help the reader get through the copy text to the end.

- _ Sans Serif may also be helpful in tables, caption text, foot notes.
- _ There are many more parameters to improve readability: column width, line spacing, hyphenation ...

Not every type family provides cyrillic glyphs.

Типография
Типография

Not every type family provides special characters and symbols. They may be indispensable e. g. "π" in Math.

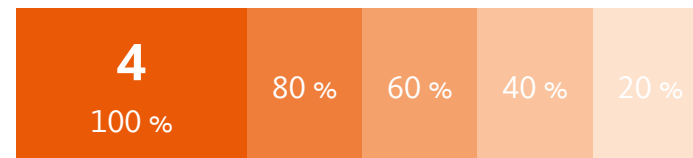
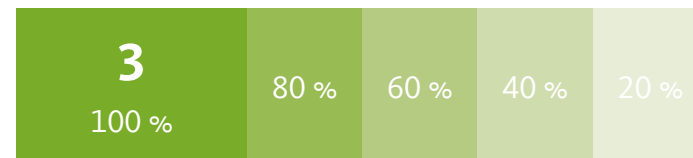
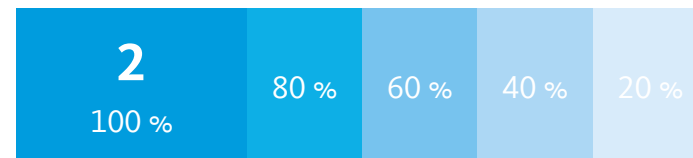
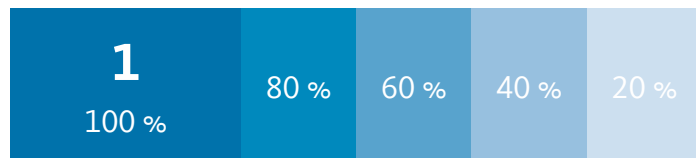
$$C = 2 \pi R$$

Use colours on purpose, e. g. to distinguish between a positive and a negative trend.

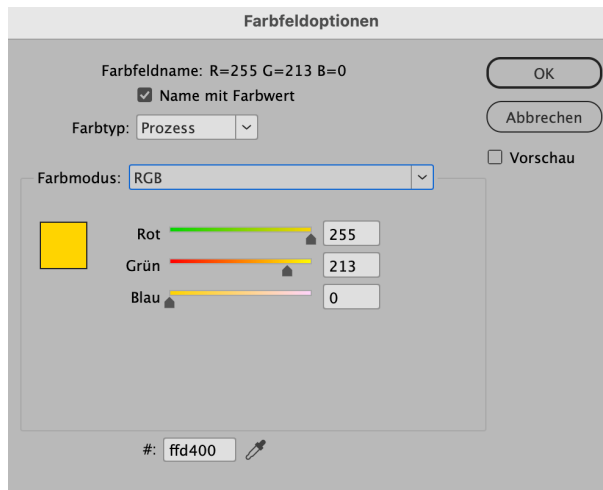
_ Once a colour is used for a purpose, do not use it for the contrary.

_ Try to define primary colours and secondary colours.

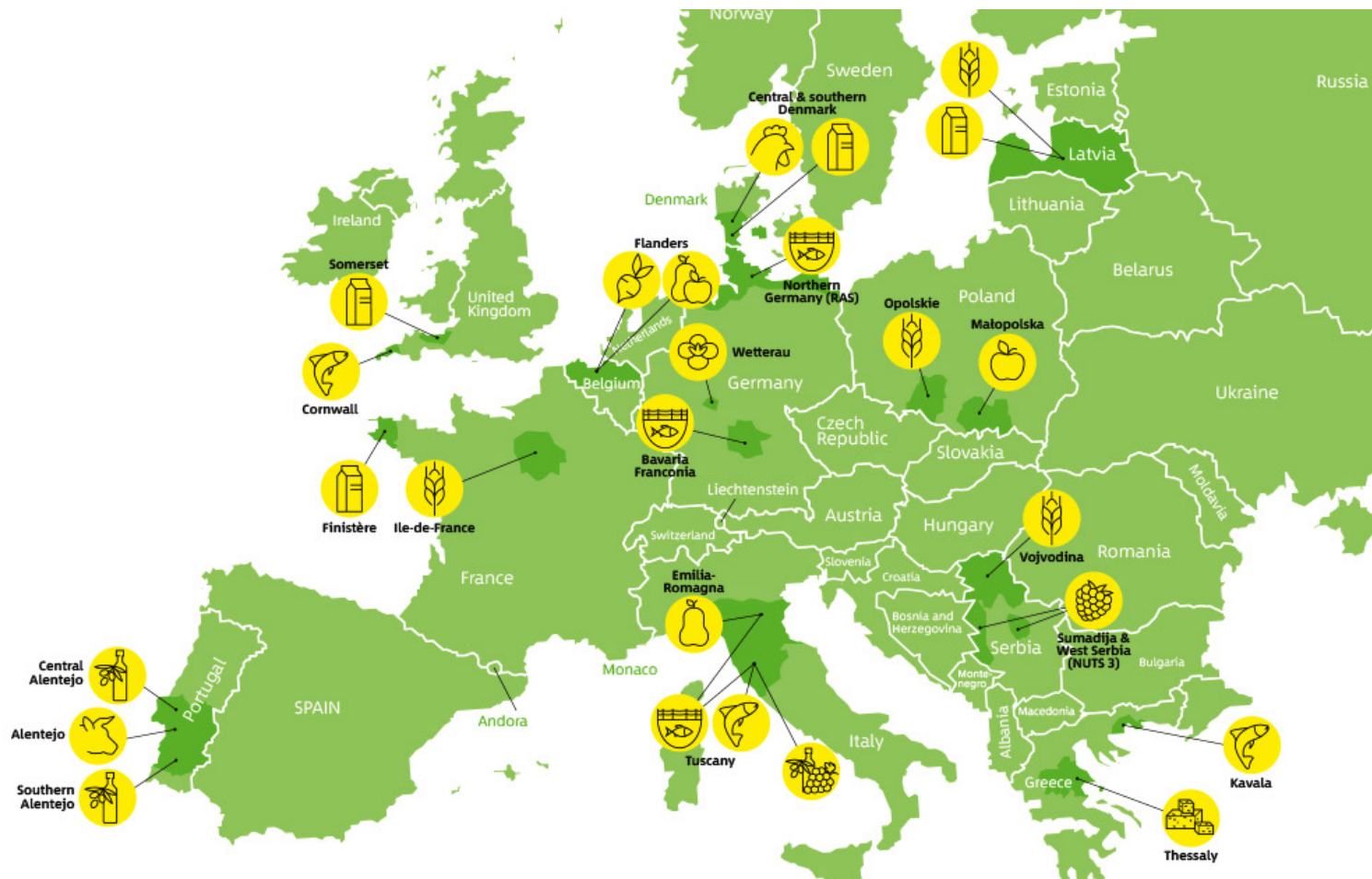
_ Using halftones expands your possibilities.



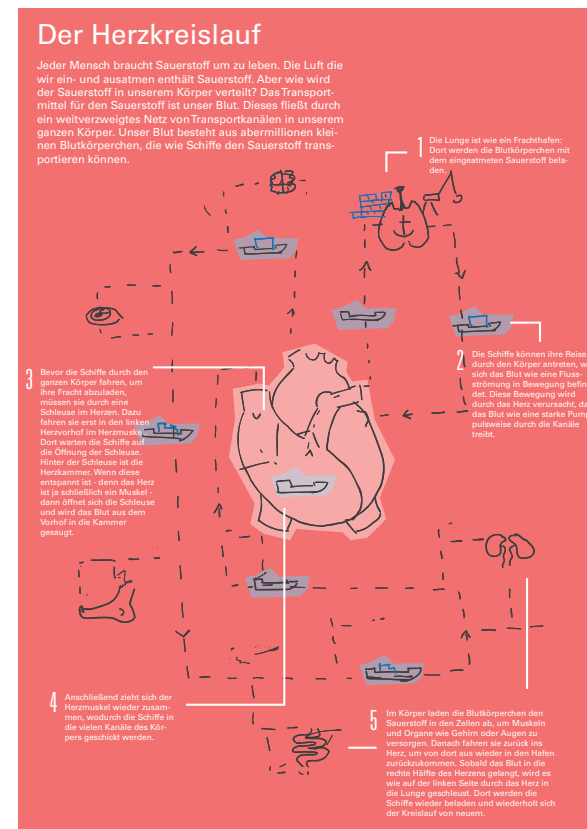
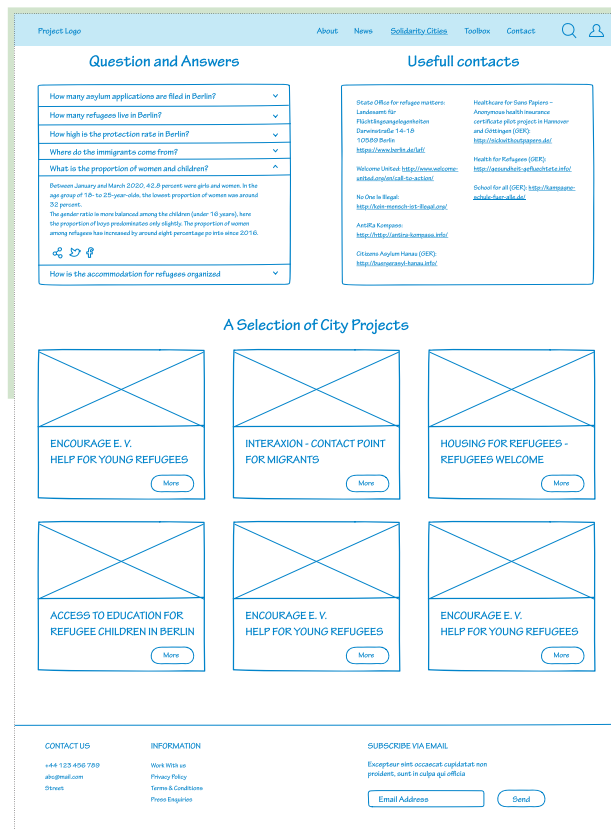
- _ Screen colours are defined in RGB (Red/Green/Blue) and use additive color mixing.
- _ Printing colours are in CMYK (Cyan/Magenta/Yellow/Key) and use the subtractive color mixing.



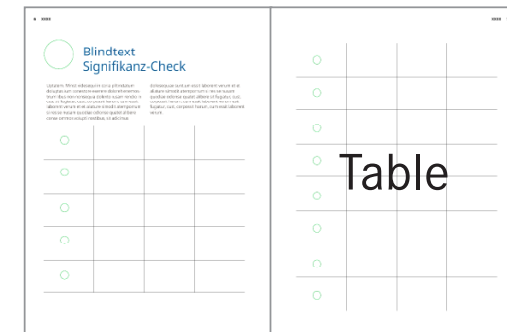
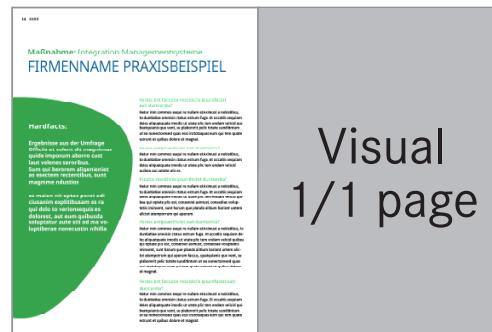
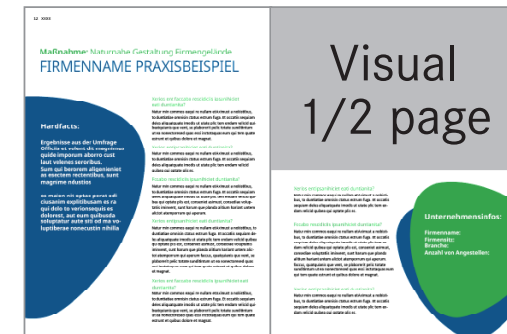
A layout is like a map, everything has its location.



For one-pagers in online or single page in print:
Make scribbles and drafts first.



For multipage leaflets, brochures and books: Make a page plan.
Mark visuals with placeholders.



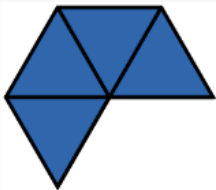
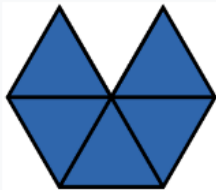
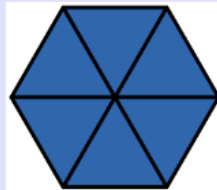
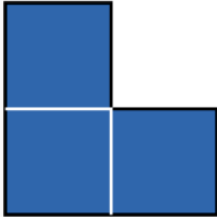
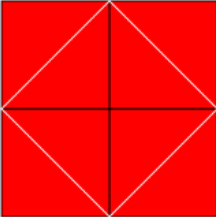
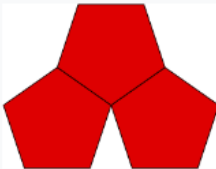
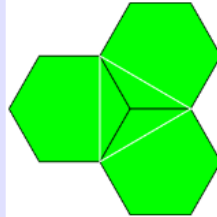
Page plan for a brochure on the importance of biodiversity for small and medium-sized enterprises.

Basic shapes are not boring; they help to tell a specific story:
Here the hexagonal form of hepatocytes tells about a liver test.



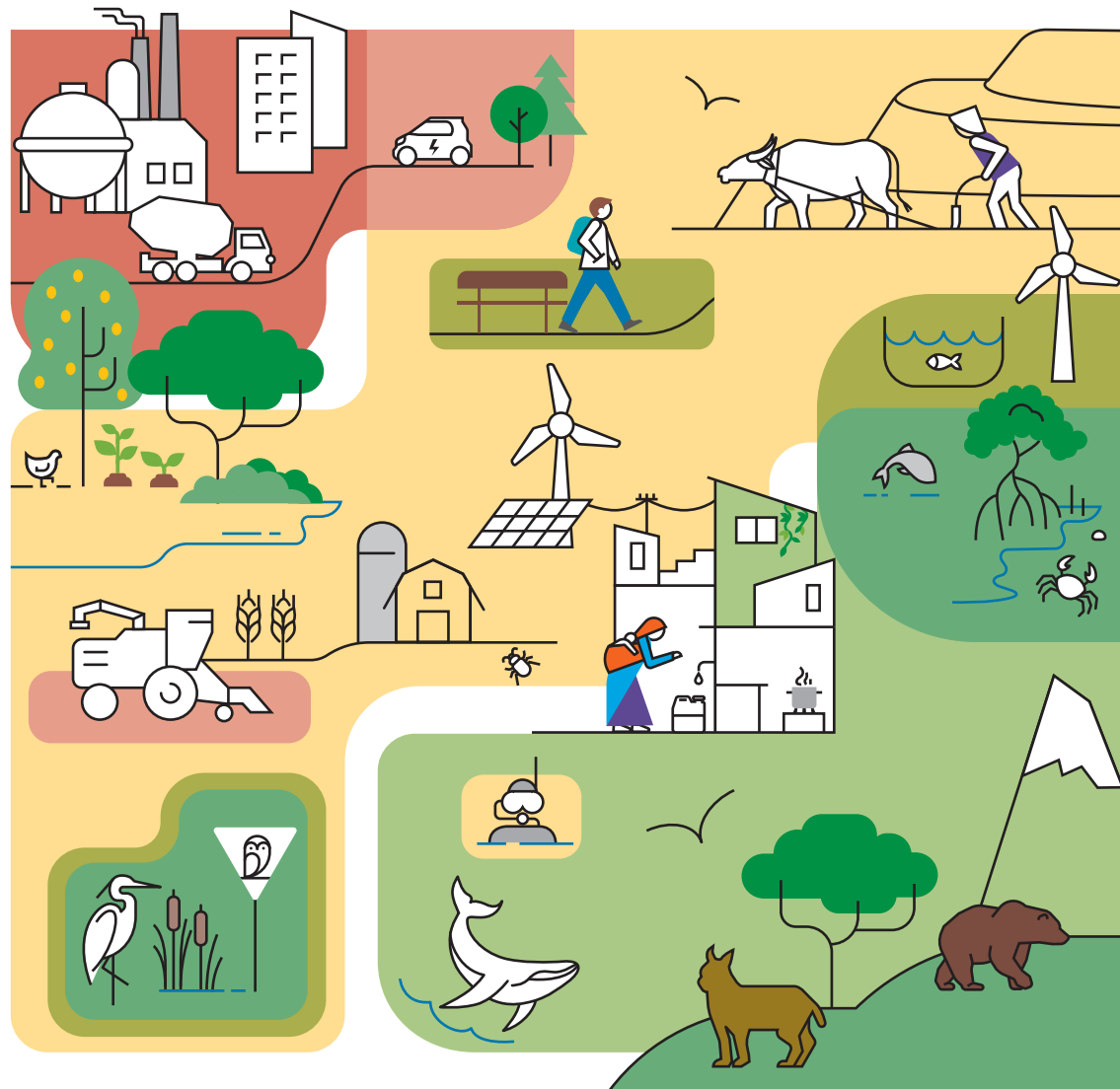


”Platonic solids“, bodies, that have the greatest possible symmetry are formed by equivalent elements.

 $\{3,3\}$ Defect 180°	 $\{3,4\}$ Defect 120°	 $\{3,5\}$ Defect 60°	 $\{3,6\}$ Defect 0°
 $\{4,3\}$ Defect 90°	 $\{4,4\}$ Defect 0°	 $\{5,3\}$ Defect 36°	 $\{6,3\}$ Defect 0°

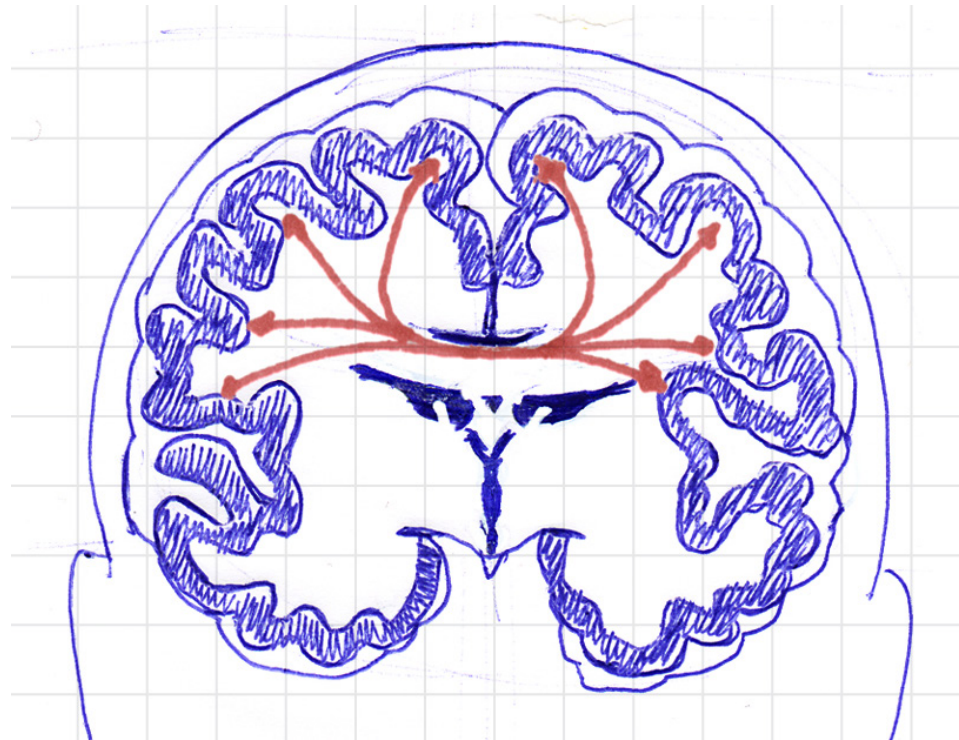
This communicates the idea of PREMIERE, which is about the multi-actor approach (MAA). It emphasizes co-creation and knowledge sharing between different groups in order to meet real needs and challenges.





Schematic graphic of a multifunctional mosaic of land and ocean uses.

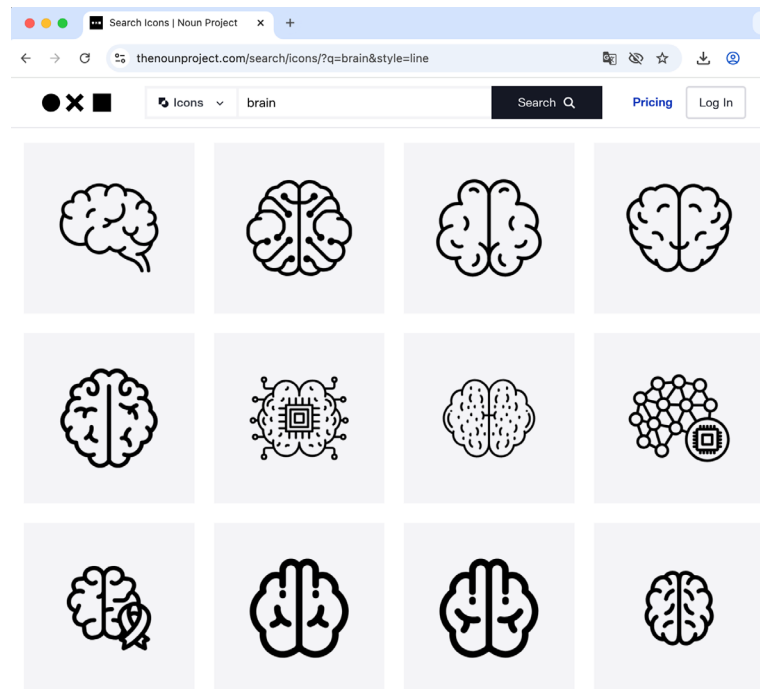
Start with scribbles! Your hand is connected to your mind;
your computer is not.



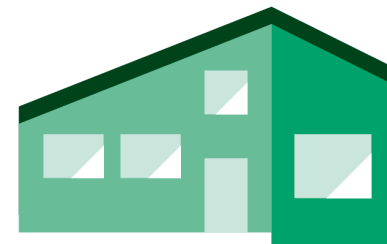
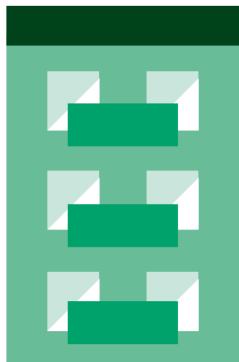
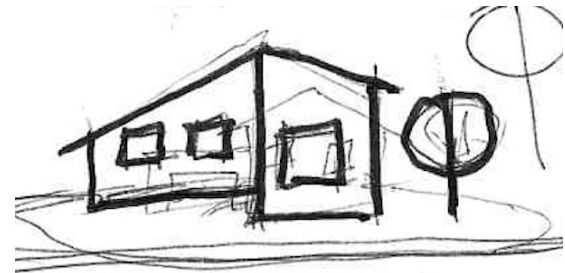
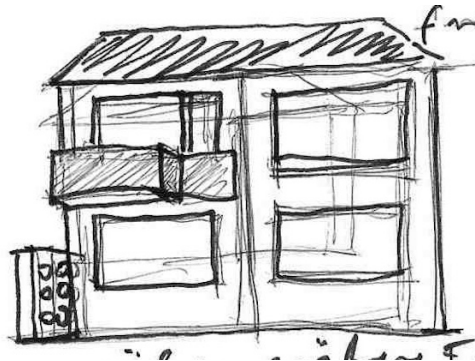
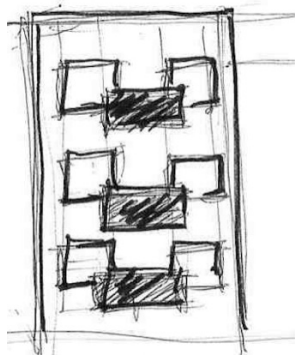
If you are not a designer work on the basis of ready-mades.

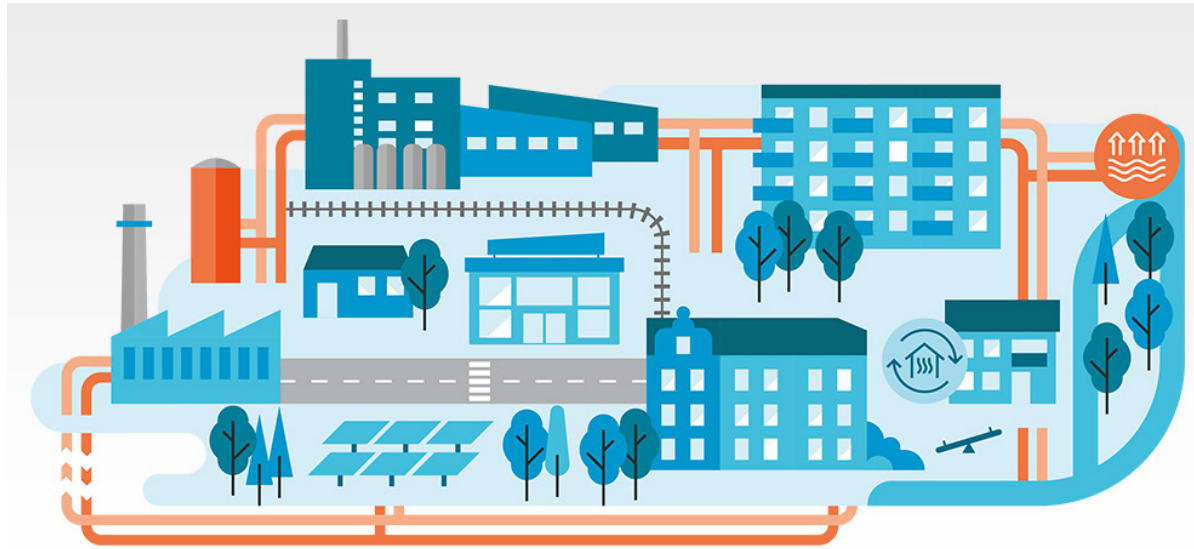
_ Many are royalty free or inexpensive. Please note copyrights!

_ Use editable vector files so you can make changes to be specific.



- _ Common things as similar as possible.
- _ Specific things as different as possible.





_ Different house types must be recognisable because they have different effects.



Separate elements if they mark a location or if they represent different context.

30



Arable crops



Fruit



Dairy



Meat



Fisheries



Aquaculture

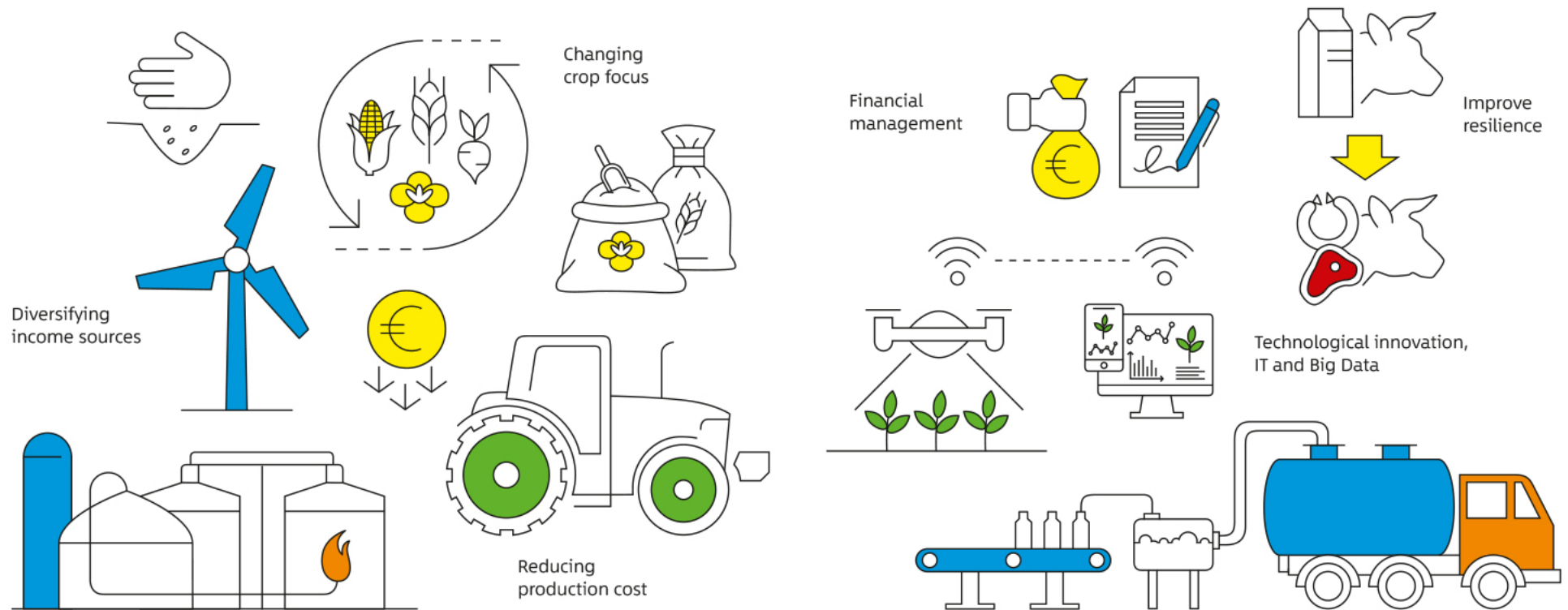


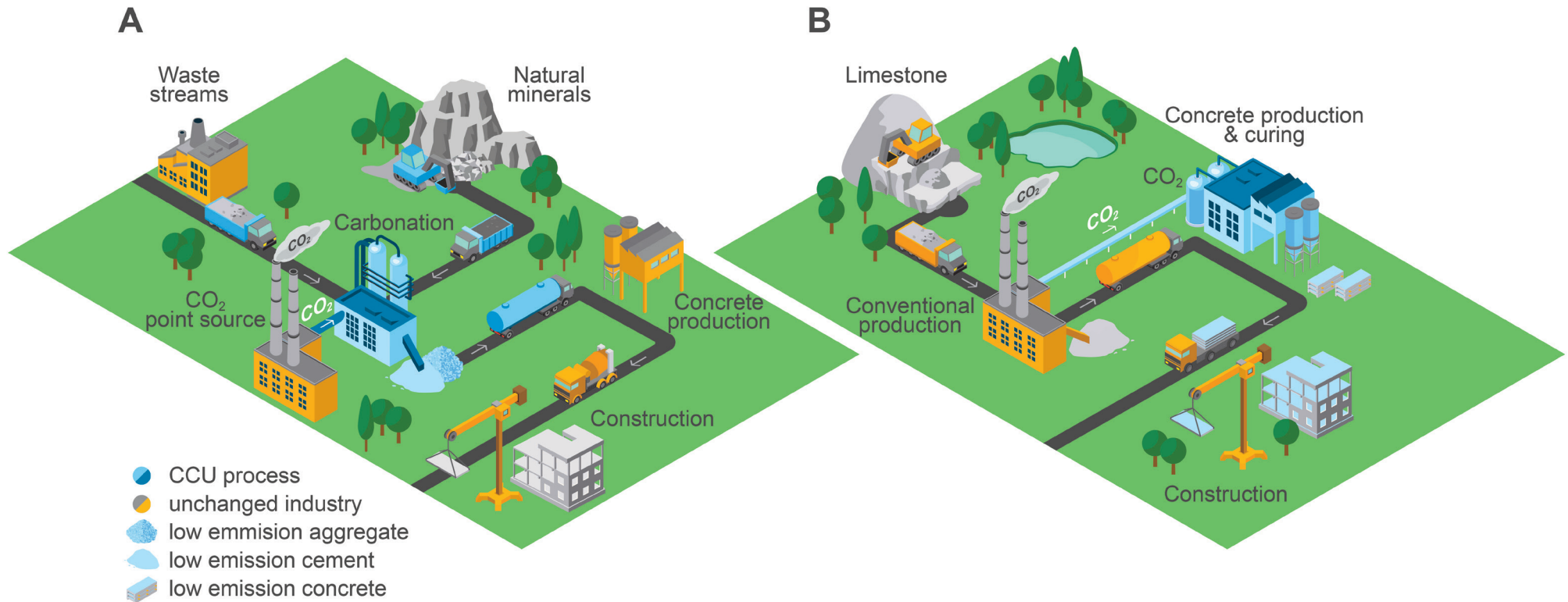
Wine



Olives



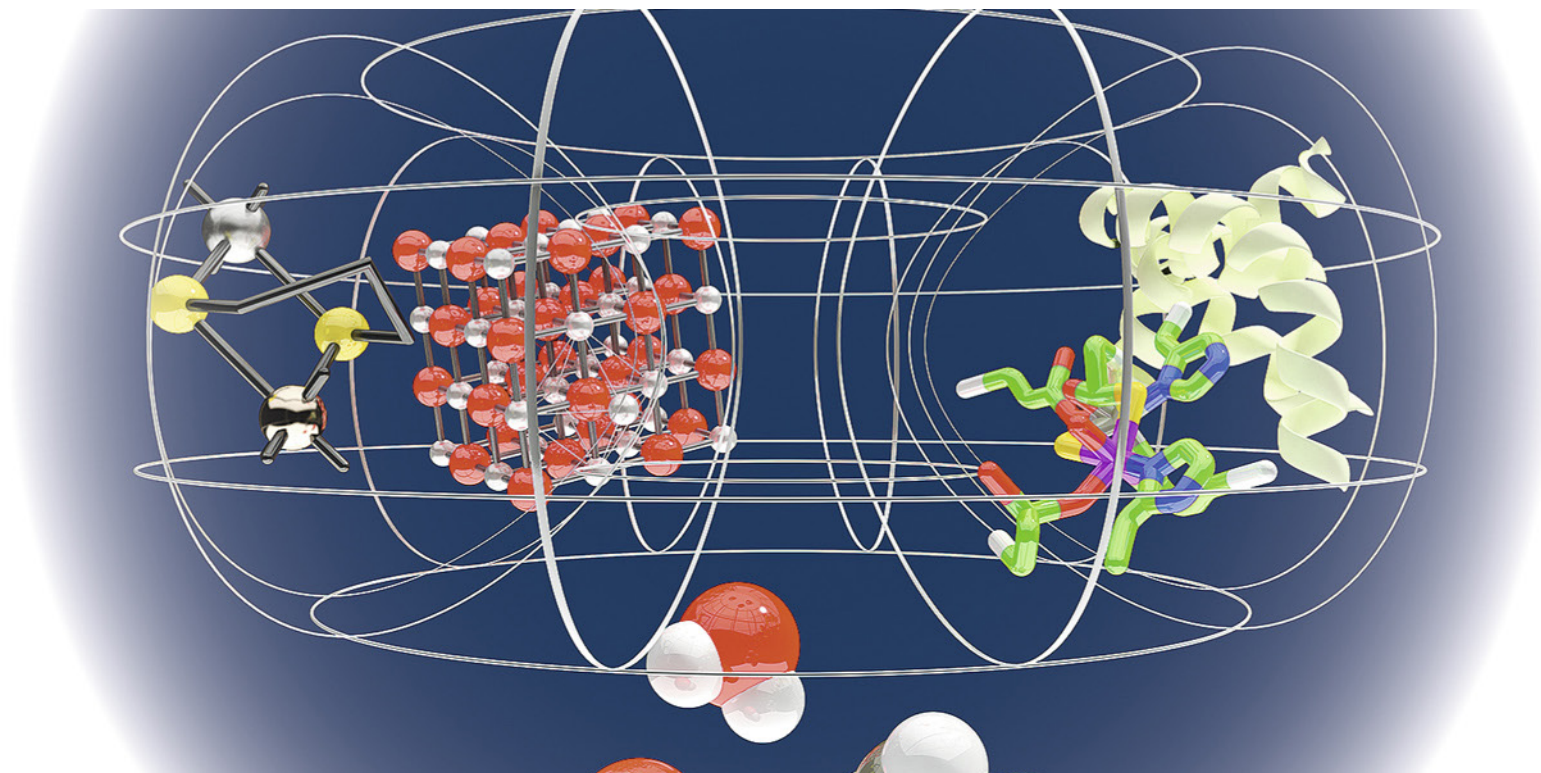




Isometric graphic on CO₂ mineralization concepts in the cement and construction industry.

... or if it's beyond reality.

33



3D-graphic on concepts of catalysis.

- _ Define setting and message. Plan your visuals.
 - _ Typography provides readability, color provides orientation.
 - _ Know your toolbox. Layout your media.
 - _ Simple forms and elements can support recognition.
 - _ Use readymades, when helpful. Note copyrights!
 - _ Elaborate visuals, if they have to be specific.
-
- _ Feel free to scribble at all times of the design process!

