TRIZ SUMMIT 2024

TRIZ Developers SUMMIT

TRIZ BIOPHARMA

RUSAL

TRIZ MASTER

TRIZ SUMMIT 2024

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Title of the report
Название доклада

Sustainability Basics

The Global Goals are the compass for innovations in the future

Um langfristig erfolgreich zu sein, die Regulierung zu antizipieren und talentierte Mitarbeiter für die Zukunft zu gewinnen, müssen Unternehmen auf Profitabilität und Nachhaltigkeit setzen.

In 2015, the global community (UN) adopted the 2030 Agenda. The Agenda is a roadmap for the future. With the 2030 Agenda, the global community wants to enable a dignified life worldwide, while at the same time permanently preserving the natural foundations of life. This includes economic, ecological and social aspects. All states are called upon to orient their actions accordingly. Germany was an early adopter of the SDGs (Sustainable Development Goals).

Company: Strategy

Exemplary target process

Where do we stand: Assessment
What are we doing well?
Where do we have gaps?

Where do we want to go,
which SDGs concern us?

What measures?

What metric?

What external review?

SDG: Sustainable Development Goals

Company: Strategy

Exemplary target process

1

Where do we stand: Assessment
What are we doing well?
Where do we have gaps?

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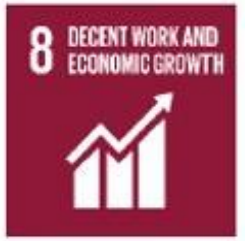


2

3

What measures?

4

What metric?

5

What external review?

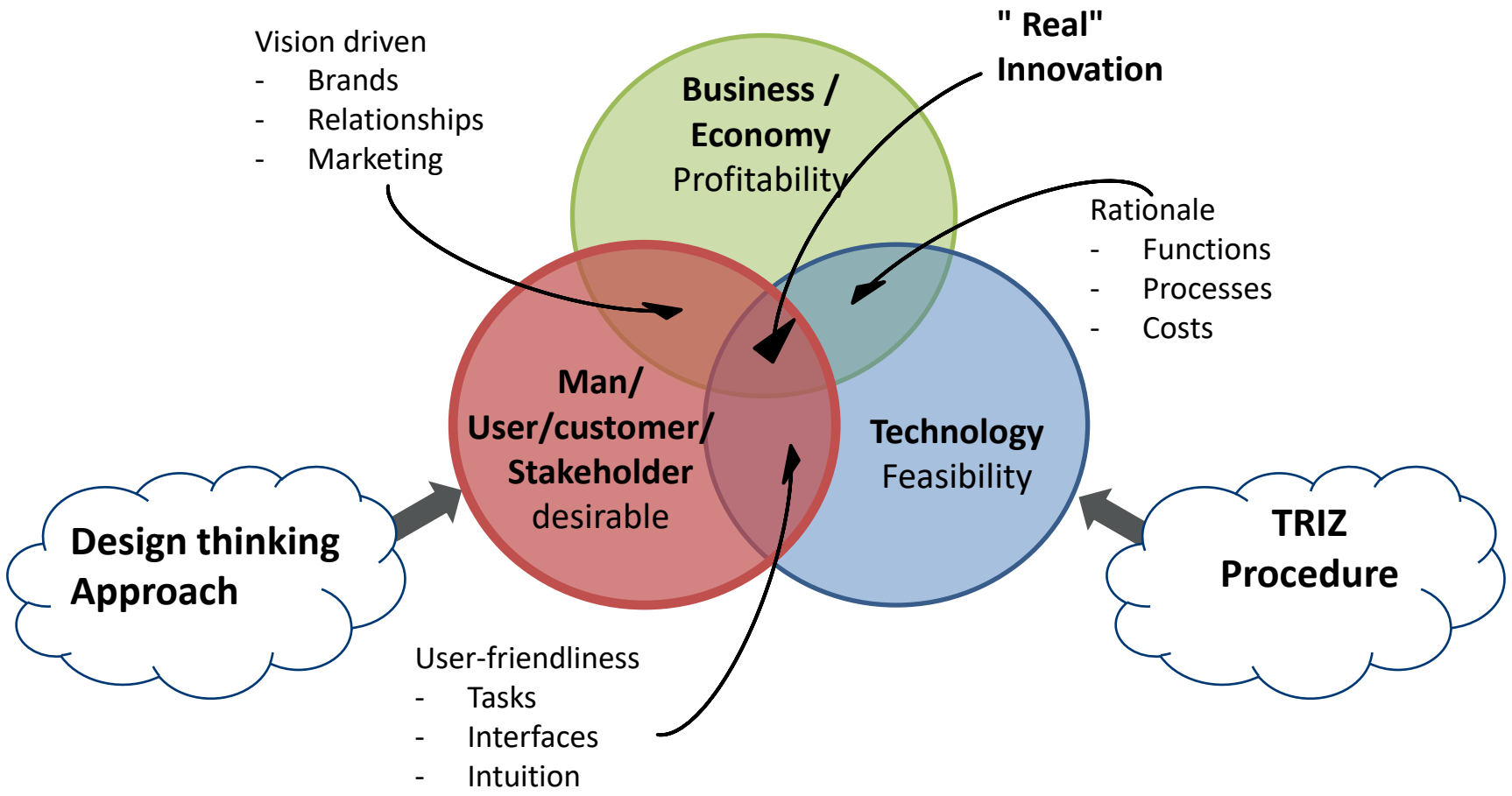
SDG: Sustainable Development Goals

From vision to realization

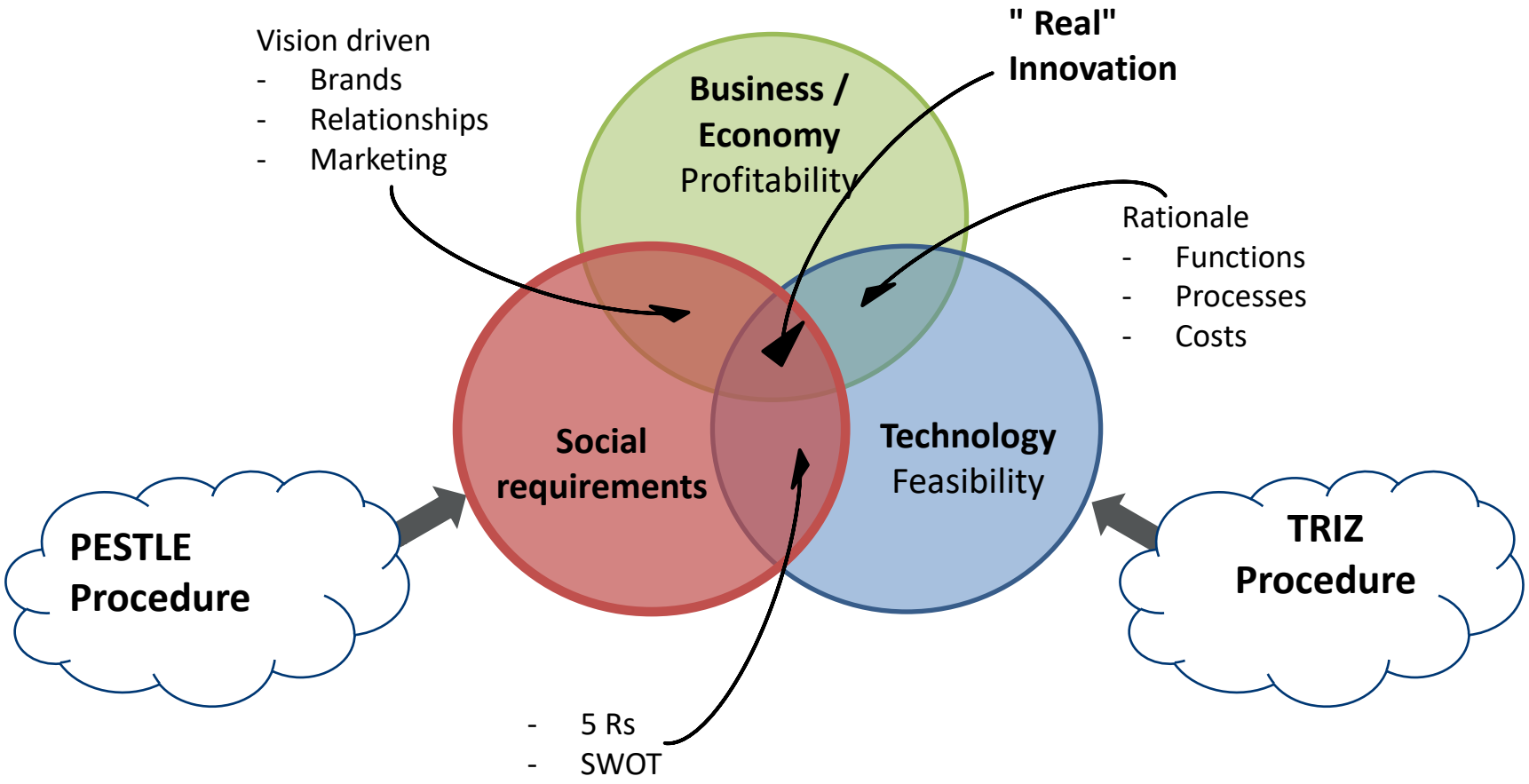
That's the way we'd like it to be...

... and this is the reality

This is how product / process development is currently viewed ...

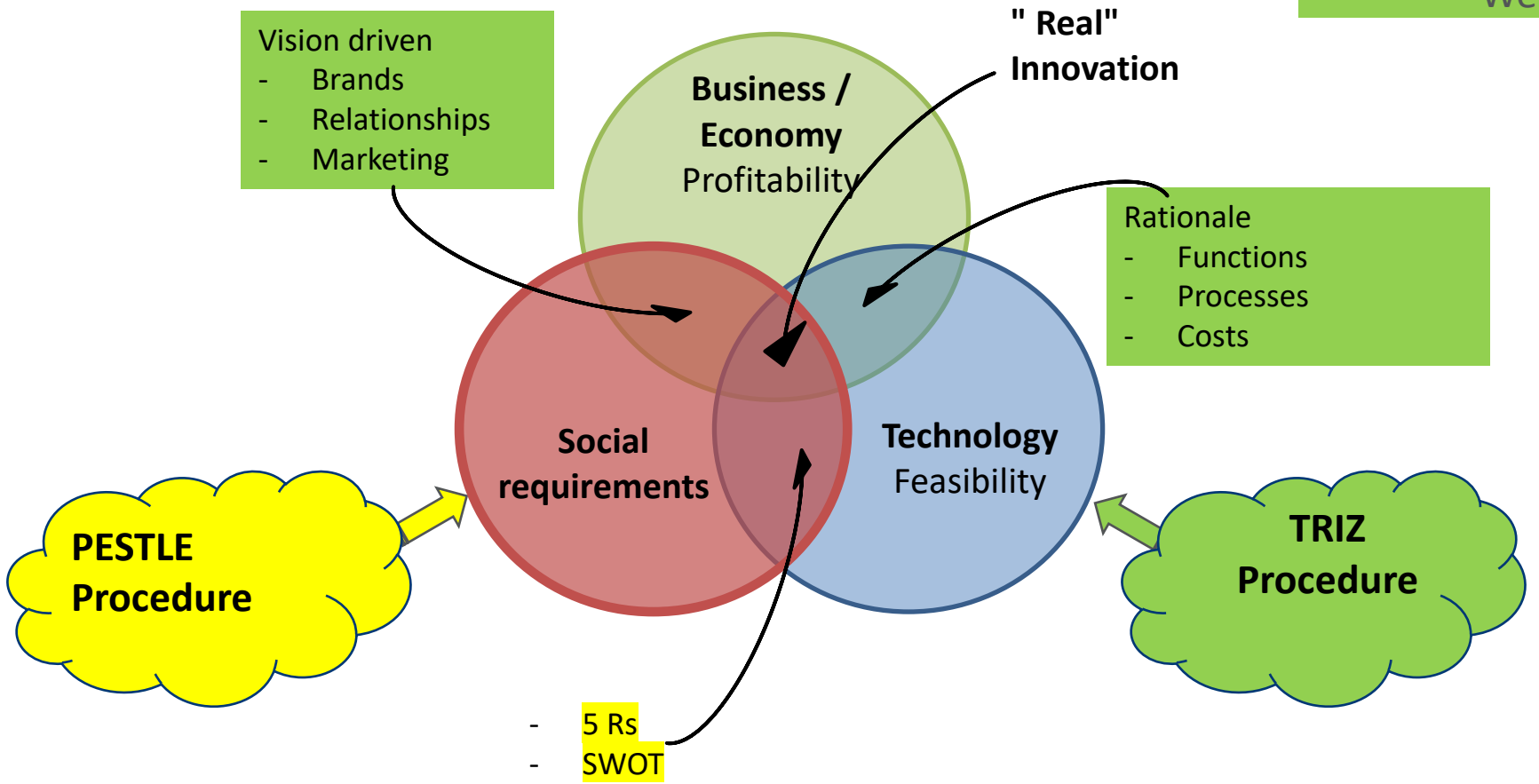


... and we have to get there



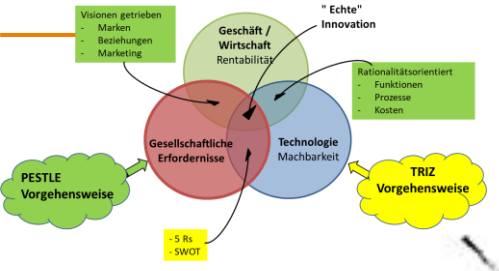
... and we have to get there

We know that



We don't know that yet

PESTLE (What?)

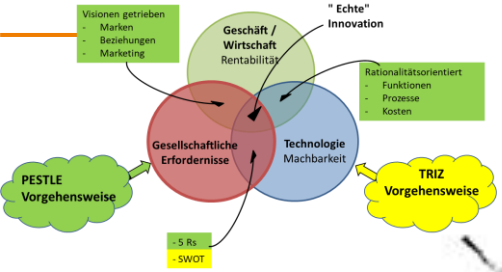

Visionen getrieben
- Marken
- Beziehungen
- Marketing
Geschäft / Wirtschaft
Rentabilität
" Echte" Innovation
Rationalitätsorientiert
- Funktionen
- Prozesse
- Kosten
Gesellschaftliche Erfordernisse
Technologie
Machbarkeit
PESTLE Vorgehensweise
TRIZ Vorgehensweise
- 5 Rs
- SWOT

SUCCESS
KEEP ON DOING
DO
TRY
IDEA

PESTLE

1. **Political** - Political factors
2. **Economic** - Economic factors
3. **Social** - Socio-cultural factors
4. **Technological** - Technological factors
5. **Environmental** - Ecological-geographical factors
6. **Legal** - Legal factors

5 Rs (How?)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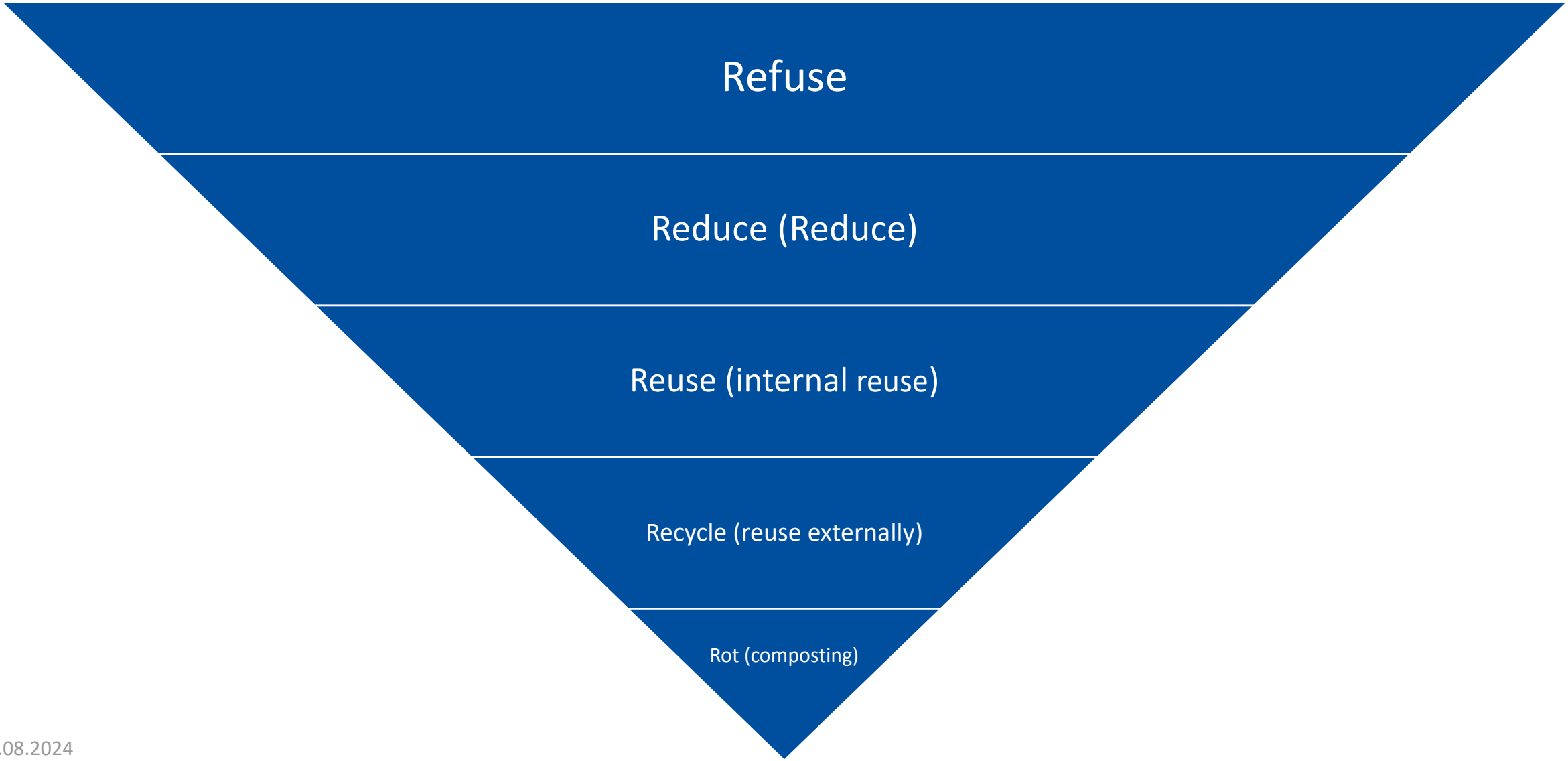
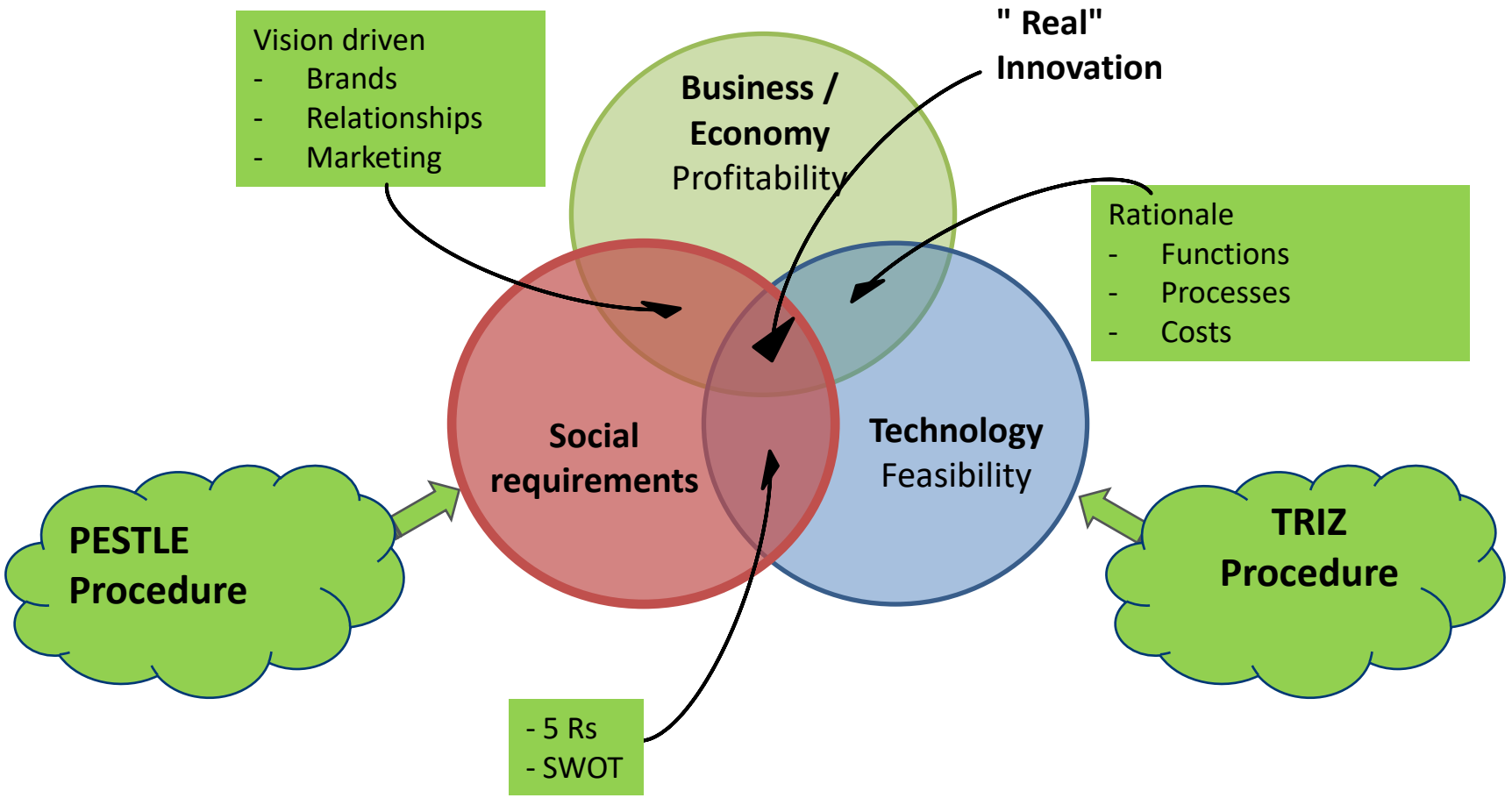
5 Rs


Refuse
Reduce (Reduce)
Reuse (internal reuse)
Recycle (reuse externally)
Rot (composting)

Sustainability in product / process development

Now the puzzle pieces are in place



Putting the puzzle together: Procedure

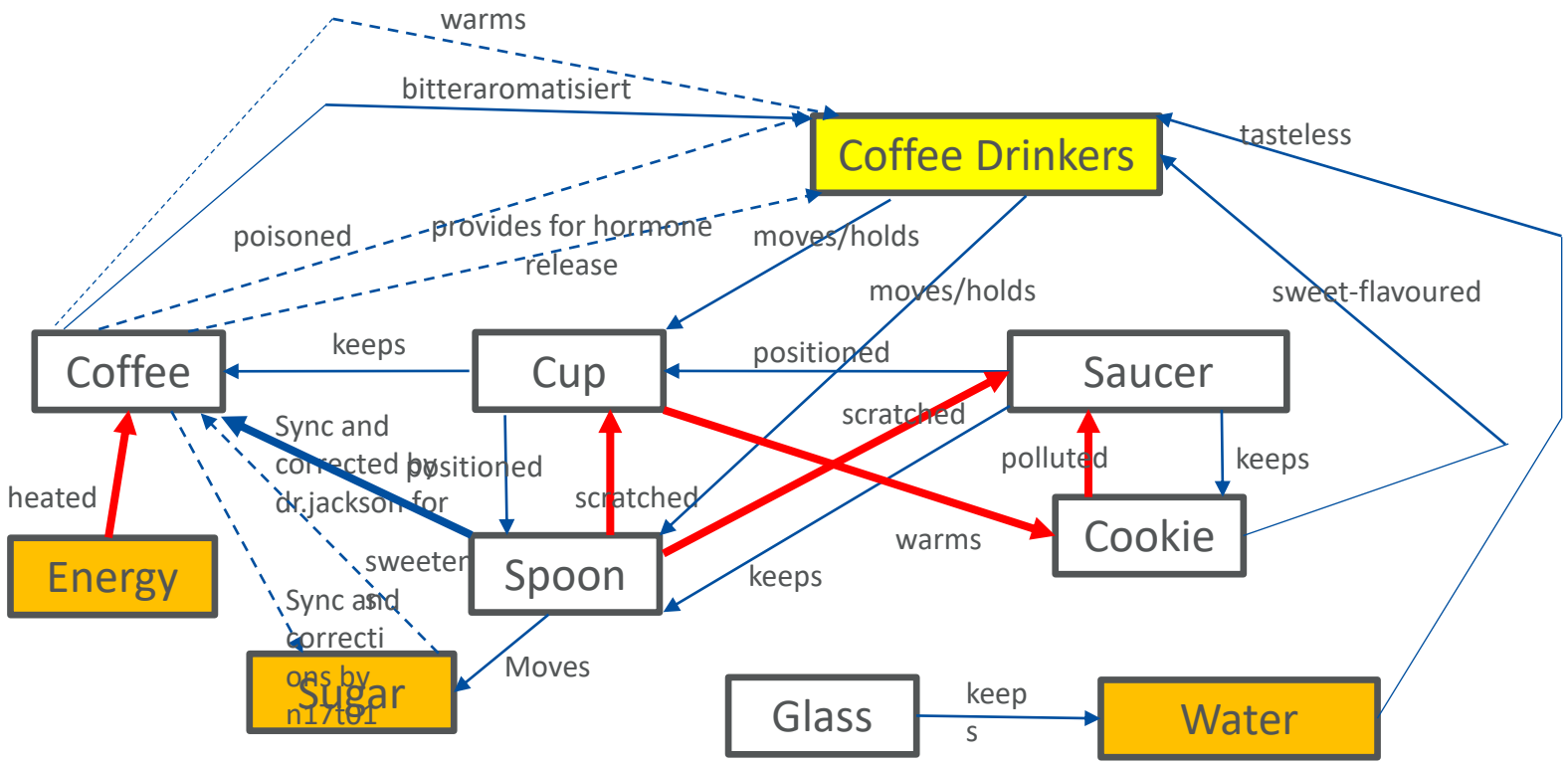
1. Define a situation and the associated system components and super system components.
2. Create a functional analysis for the system. Define tasks for improvement.
3. Create the processes necessary to create AND dismantle the situation (cradle to grave).
4. For each system element / process step the PESTLE elements are introduced as super system components.
5. A functional analysis is carried out for each element and the tasks for improvement are defined.
6. Solving problems with the 5Rs or contradiction matrix, DT, etc.
7. Evaluate the solution IDEAS.

1. define product / process: Espresso coffee

First, the product and thus the system is defined. In addition, the supersystem must be determined. For the sake of clarity, only the following supersystem components are used here:

- Coffee drinkers (as a target component)
- Energy (for making coffee)
- Water
- Sugar

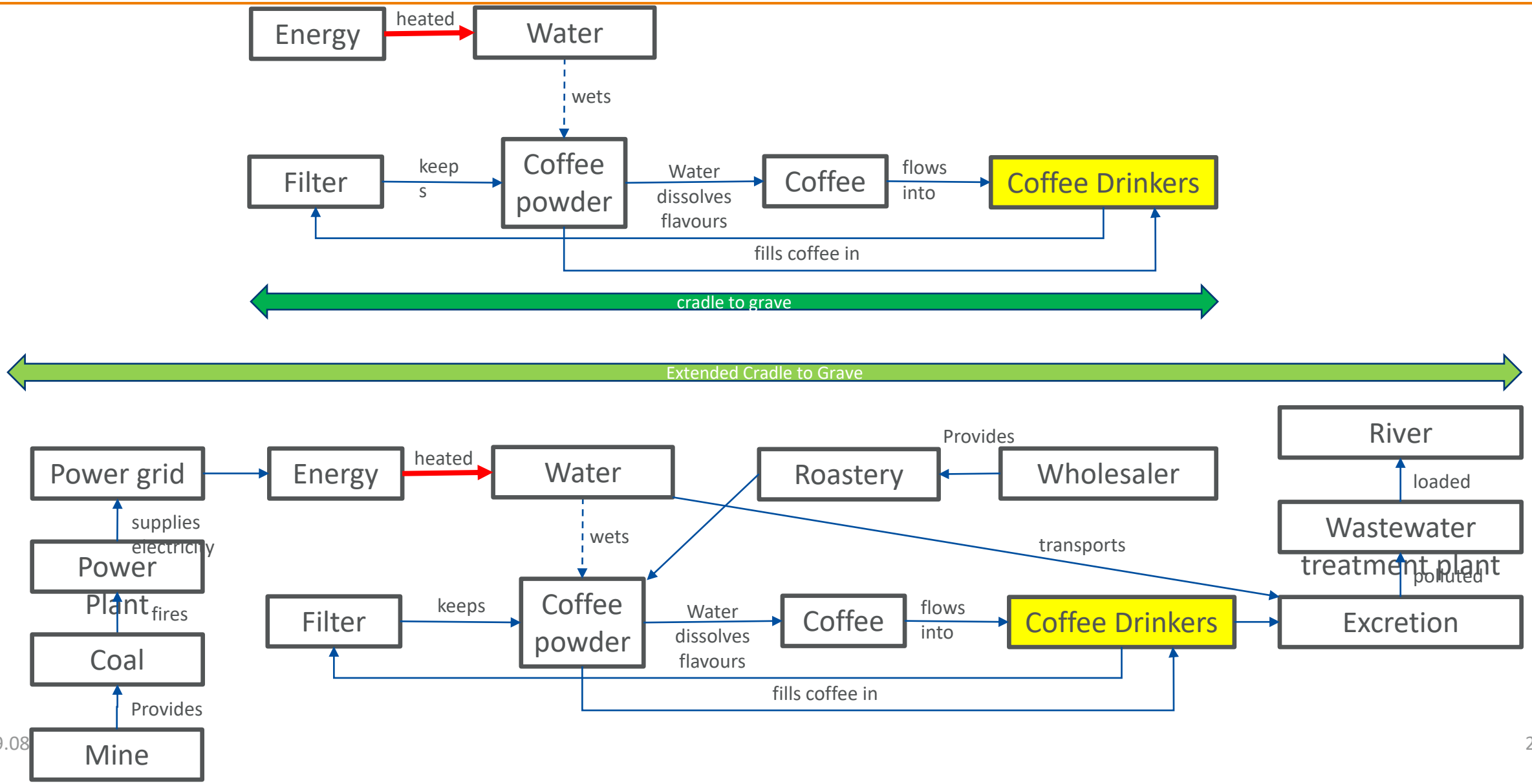
2. functional analysis (FA) Coffee as a product



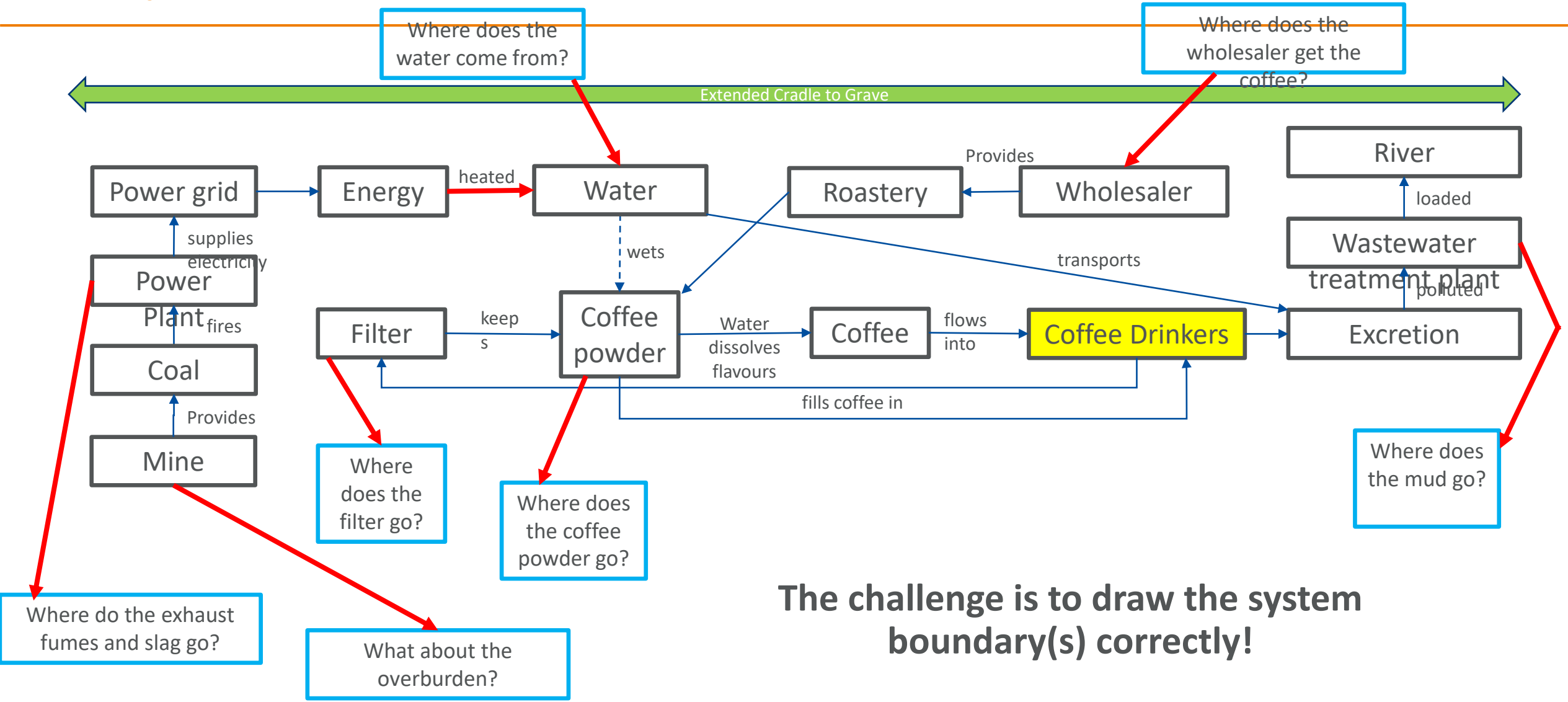
Assignments:

- How to prevent the spoon from scratching the saucer?
- How to prevent the spoon from scratching the cup?
- How to prevent the cookie from soiling the saucer?
- How to prevent the need to heat the coffee?
- How to prevent the spoon from cooling the coffee.

3. functional analysis (FA) coffee as a process

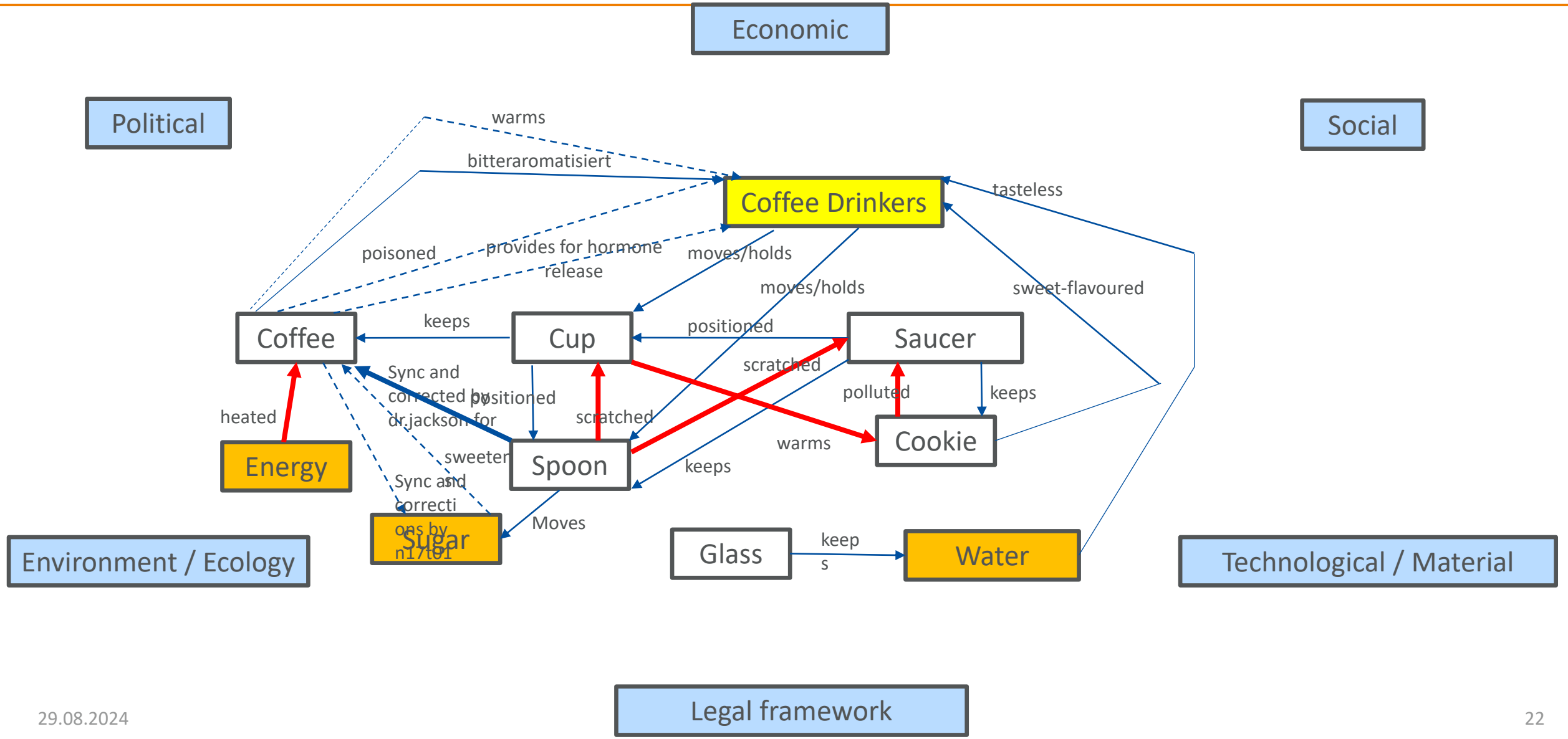


3. functional analysis (FA) coffee as a process

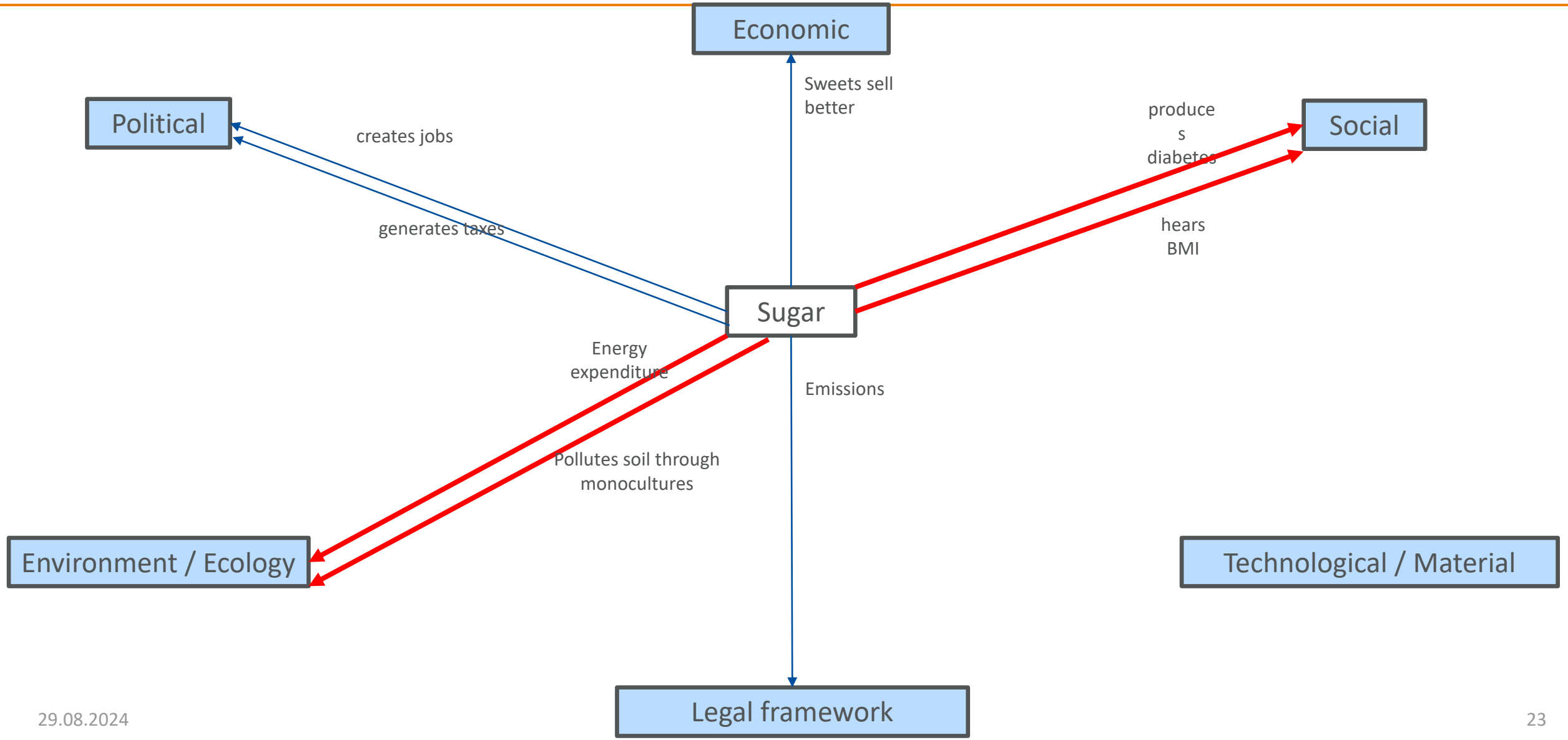


The challenge is to draw the system boundary(s) correctly!

4. functional analysis (FA) coffee with PESTLE



5. functional analysis (FA) sugar - PESTLE



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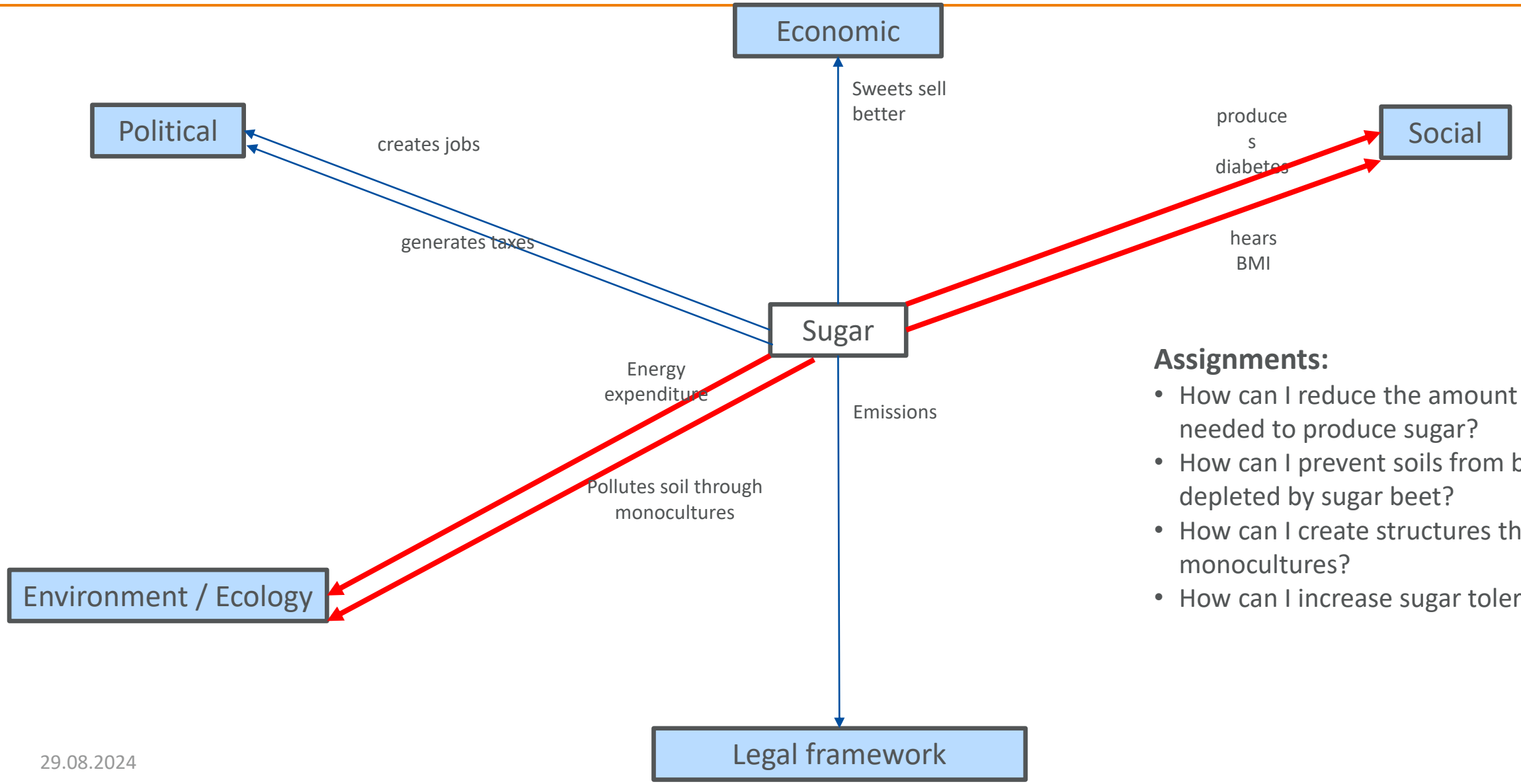
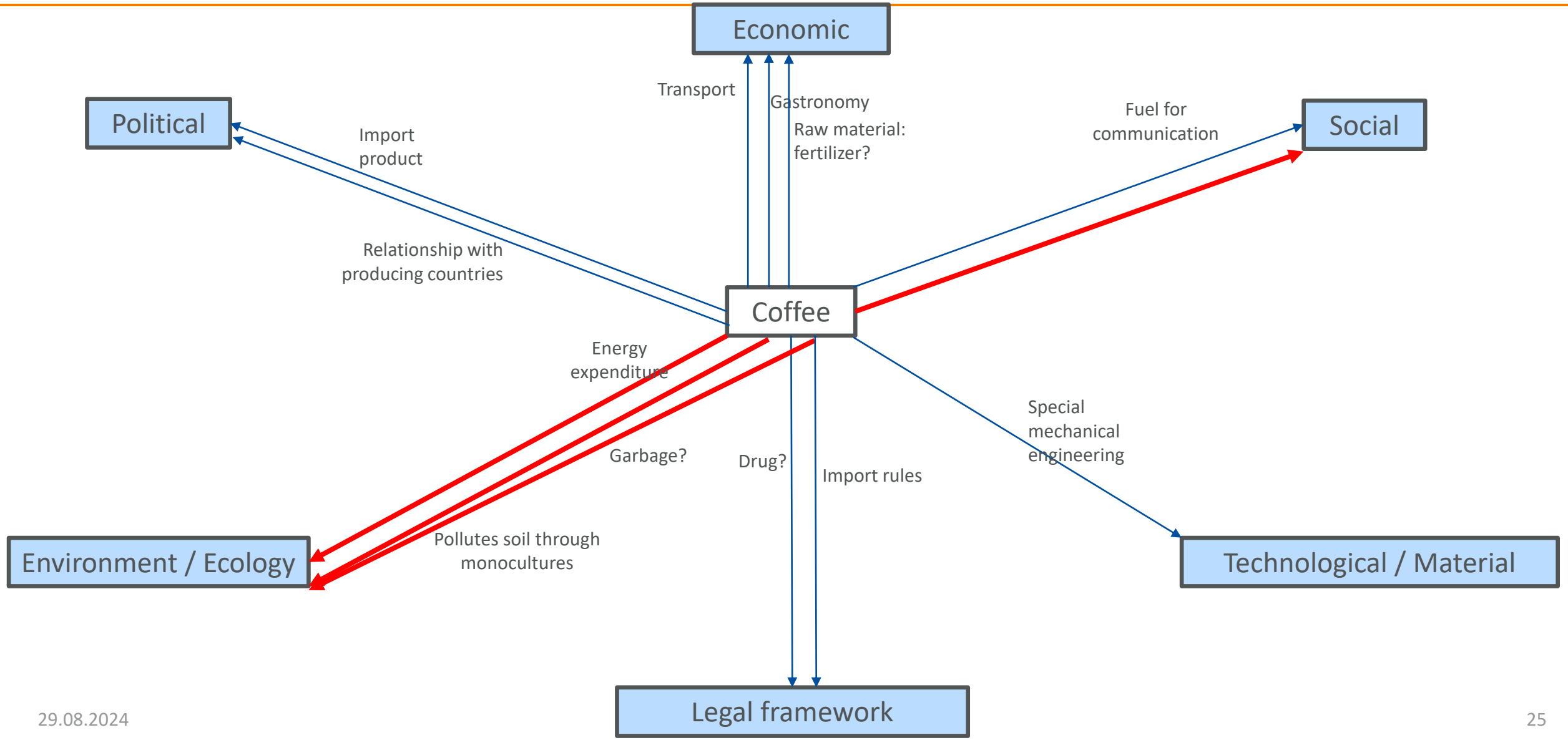


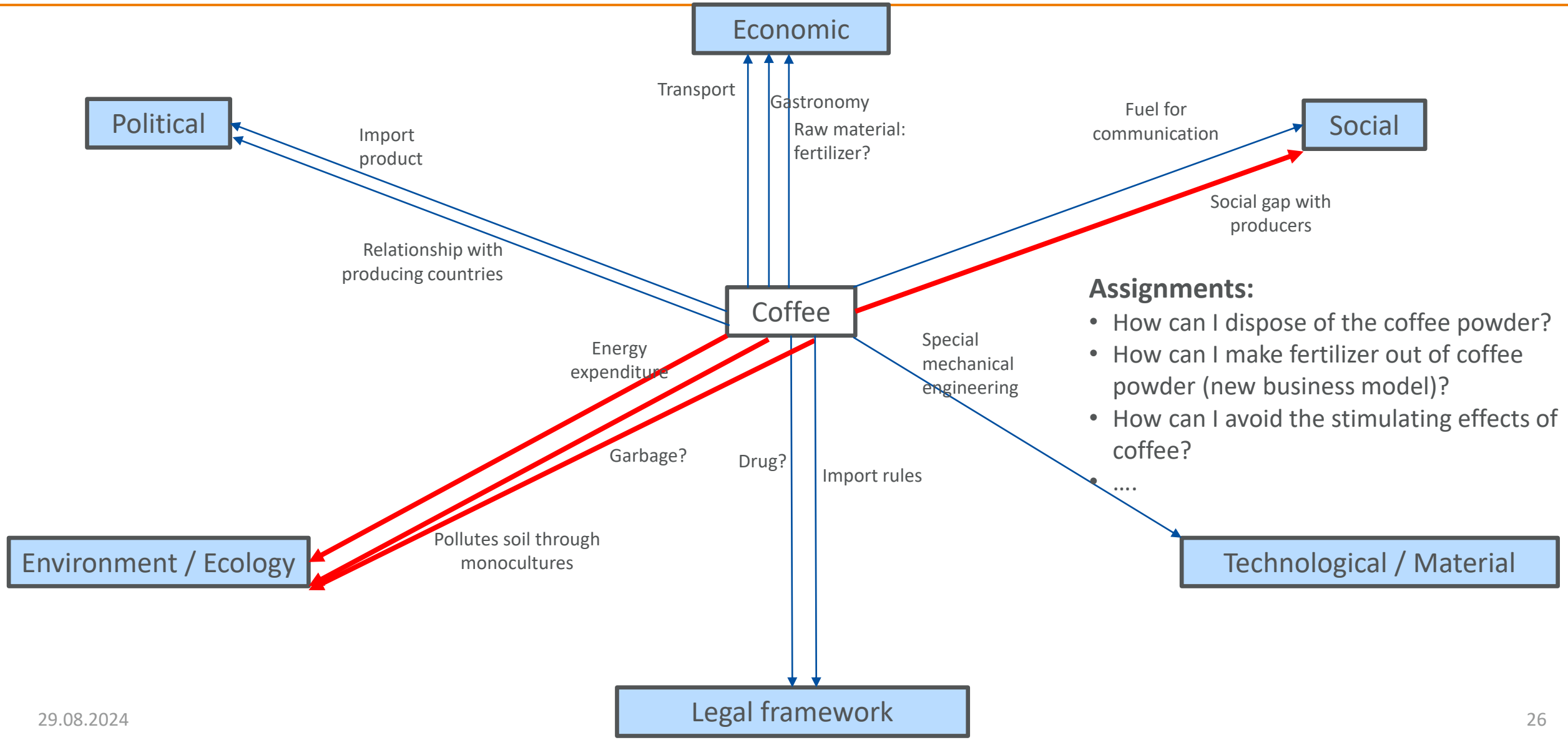
Assignments:

- How can I reduce the amount of energy needed to produce sugar?
- How can I prevent soils from being depleted by sugar beet?
- How can I create structures that prevent monocultures?
- How can I increase sugar tolerance?

5. functional analysis (FA) coffee - PESTLE



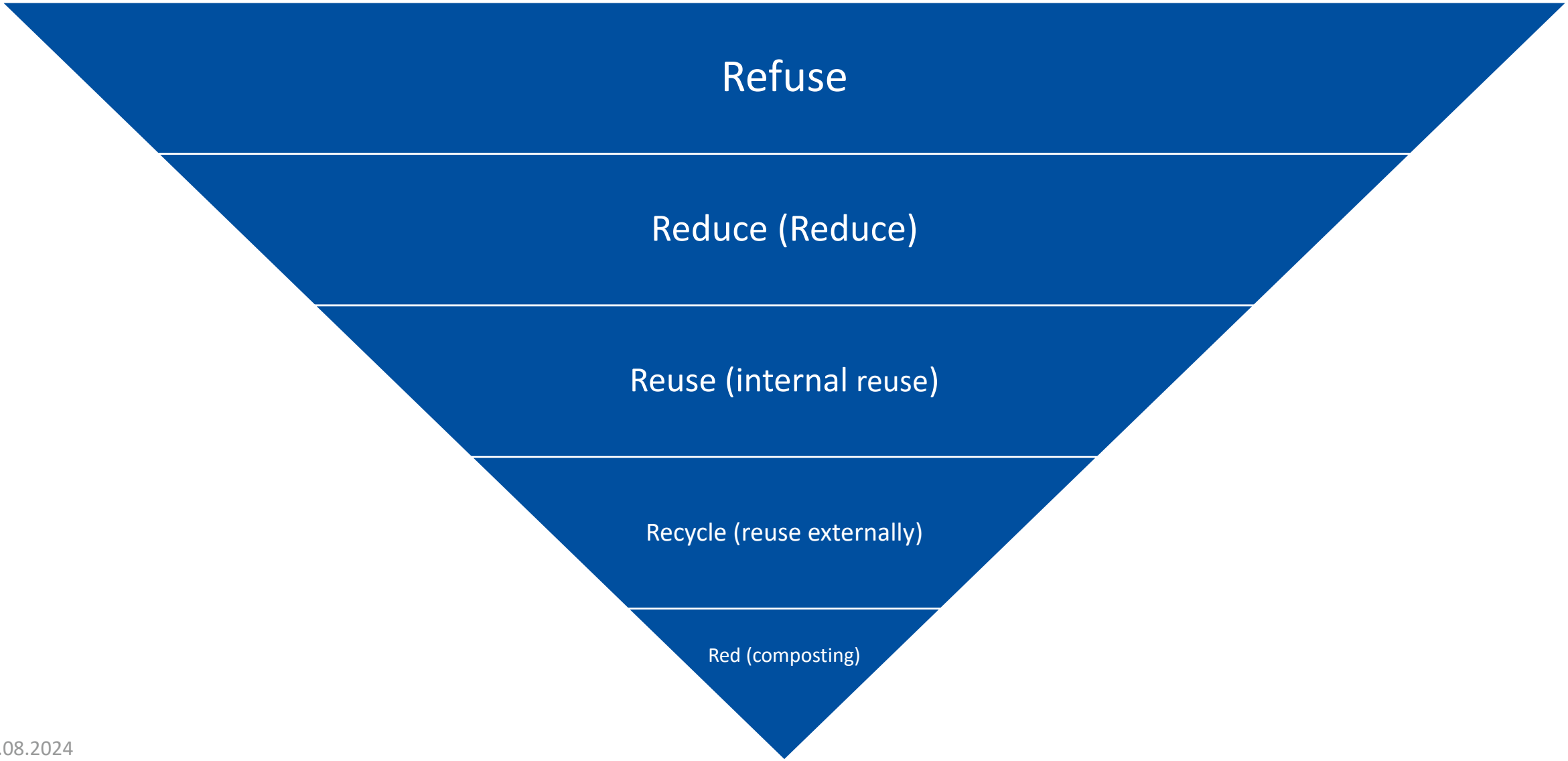
5. functional analysis (FA) coffee - PESTLE



Assignments:

- How can I dispose of the coffee powder?
- How can I make fertilizer out of coffee powder (new business model)?
- How can I avoid the stimulating effects of coffee?
- ....

5 Rs


Refuse
Reduce (Reduce)
Reuse (internal reuse)
Recycle (reuse externally)
Red (composting)

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Innovation leben

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Q&A

SESSION

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THANK YOU!

Спасибо!