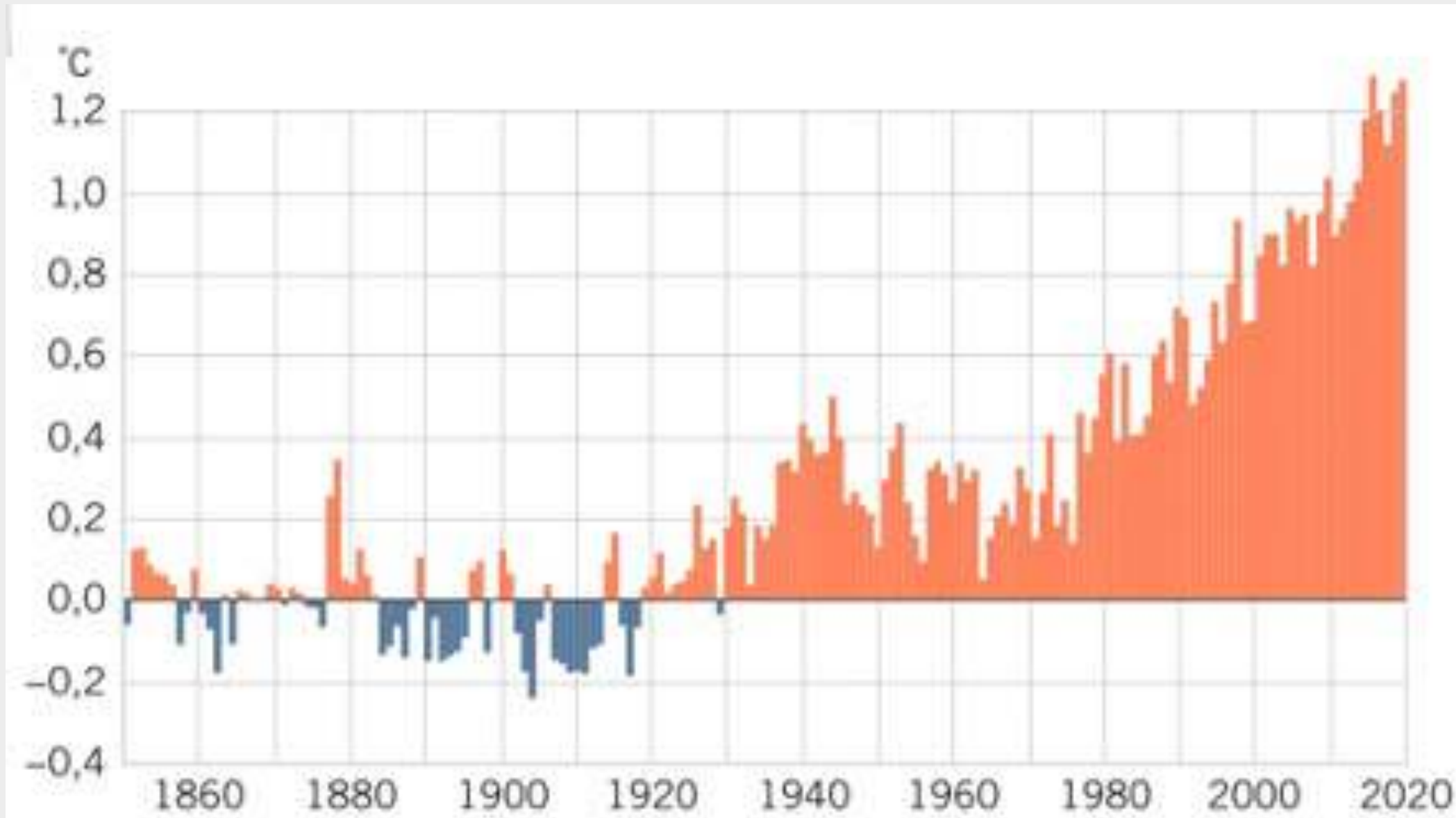


TOWARDS BETTER COLLABORATIVE PROJECTS WITHIN THE FRAMES OF THE GREEN TRANSITION

Deviations from global average surface temperature 1850-2020



- Concentration of CO₂ has increased about 50% since pre-industrial time, e.g. due to use of fossil fuels
- Further dramatic increases expected over the coming decades
- Few expect even +2 to hold, and global warming is just one of many sustainability-related problems...

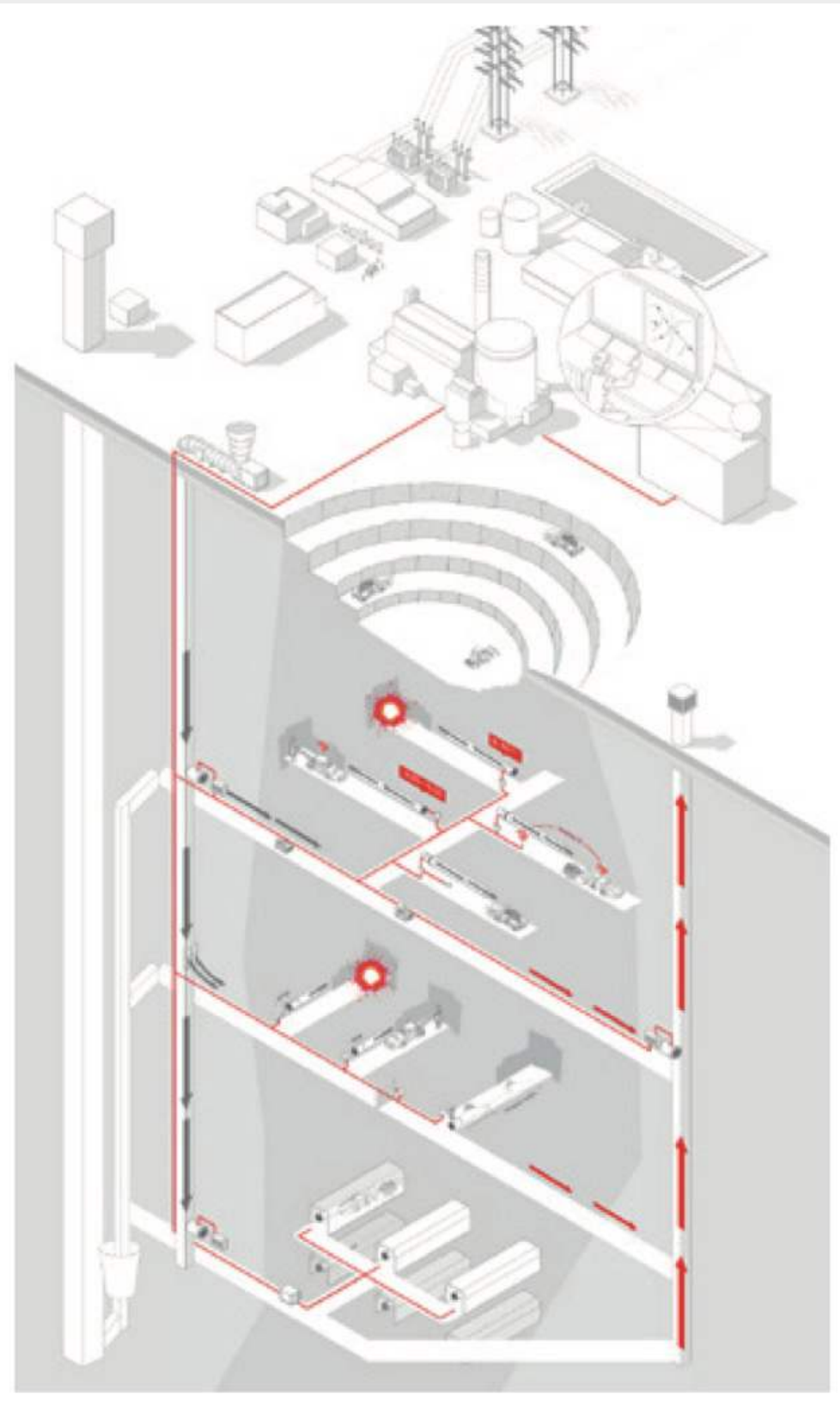
Reference: Swedish Environmental Protection Agency

AT THE INDUSTRY LEVEL: FOSSIL FREE SWEDEN 2045?

- Sweden climate neutral 2045 (Sustainable welfare state)
- 22 roadmaps
- Strategies for fossil free competitive advantage: Hydrogen, batteries, etc. (including mining and minerals)
- New political initiatives but also "voluntary" actions from industry



WHAT ARE COMPANIES WITHIN INDUSTRIES DOING?



- Industrial projects with a clear focus on resource efficiency, sustainability and circularity
- **Example:** ABB ventilation-on-demand: Adds fresh air, improves air quality, lowers energy consumption +/- 50% and expenses for heating +/- 20%
- Ventilation is around 50% of a mines total energy consumption

**GREEN TRANSITION REQUIRES
COLLABORATION, BUT IN WHICH
WAY?**

TRADITIONAL PROCUREMENT MODEL



- Buy products off-the-shelf
- Push for price/low cost
- Control for quality

- Good for improving the efficiency of existing business
- Works less well for collaborating towards the development of new business

COLLABORATION FOR SUSTAINABILITY HAS A DIFFERENT **PURPOSE** THAN TRADITIONAL PROCUREMENT

- Spreading costs and risks of innovation across different partners
- The ability for synergistic knowledge recombination across different partners
- Create change at the level of the value chain or ecosystem through collective effort

A different purpose requires a different evaluation logic

- Shared mindset
- Shared technology development
- Active in innovation projects

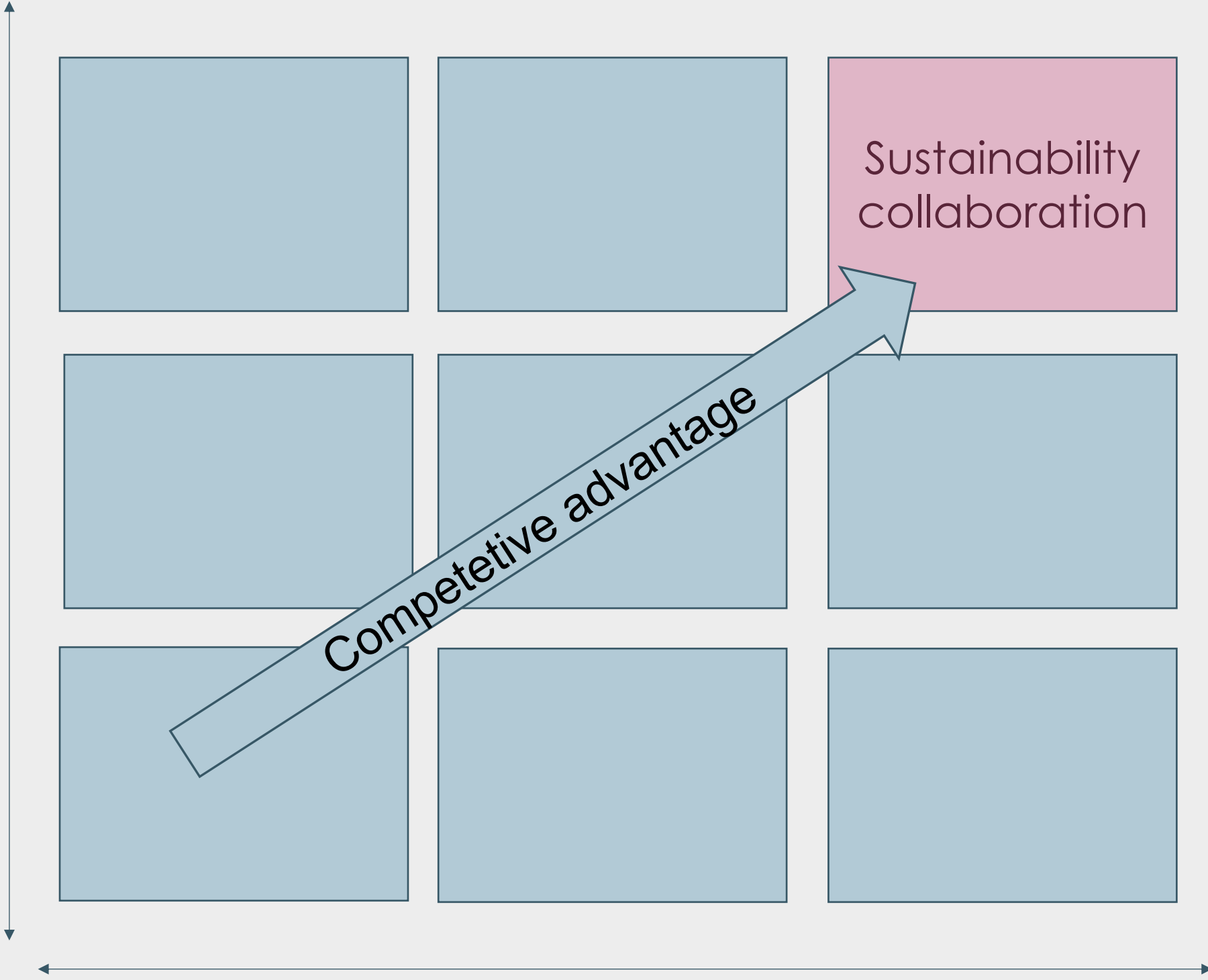
- Transparency in costing, willingness to work together to lower cost
- Low control costs – self-managed

Price/Quality
dimension



Relationship dimension

**Price/
Quality
dimension**



Sustainability
collaboration

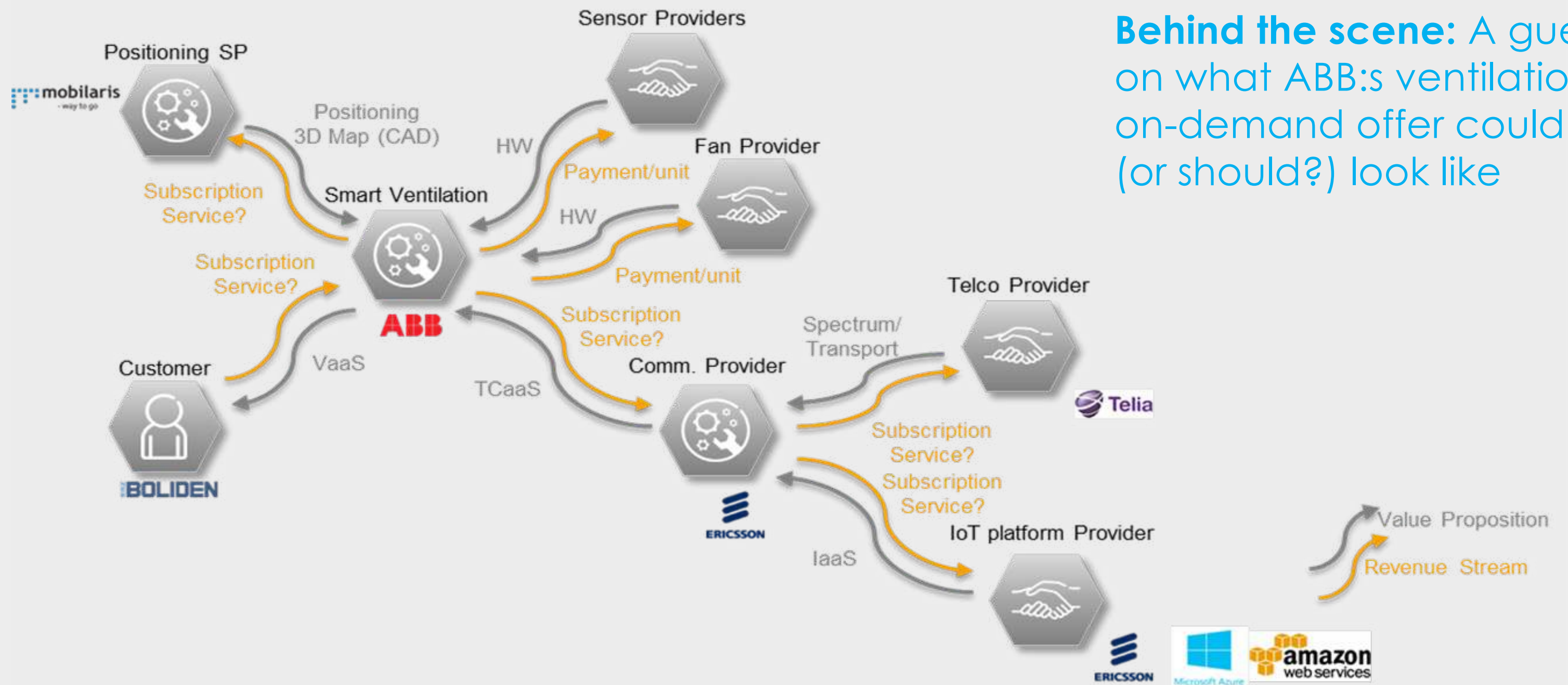
Not everyone is suitable for sustainability collaborations. It is about targeting a few carefully selected partners.

More like a marriage than Tinder dating

Core question: what comes first?
The partnership or the technology?

Relationship dimension

**COLLABORATION FOR
SUSTAINABILITY: PROJECTS ARE
OFTEN SITUATED IN WIDER
INDUSTRIAL ECOSYSTEMS**



Behind the scene: A guess on what ABB:s ventilation-on-demand offer could (or should?) look like

In ecosystems, different firms have different **roles**: Coordinating key firm ("hub firm"), technology/platform provider, service provider, customers, etc. Uncertainty and complexity are hallmarks of such collaboration

WHAT IS AN INDUSTRIAL ECOSYSTEM?

A system of collaborating actors who interact to create a joint value proposition (Adner, 2017)

Not even a company of ABB:s size can do everything themselves

COLLABORATIONS ARE PRONE TO FAILURE

ALREADY TRADITIONAL R&D ALLIANCES RANGE BETWEEN 50% AND 80% FAILURE RATES

– SUSTAINABILITY COLLABORATIONS ARE EVEN MORE CHALLENGING

Sustainability collaborations compared to traditional R&D collaborations

More conflict areas

- One firm's advantage can be another firm's disadvantage
- Good for the environment vs. good for business
- Different sustainability goals (e.g. safety vs. carbon dioxide emissions)
- Different understandings of what is "sustainable"

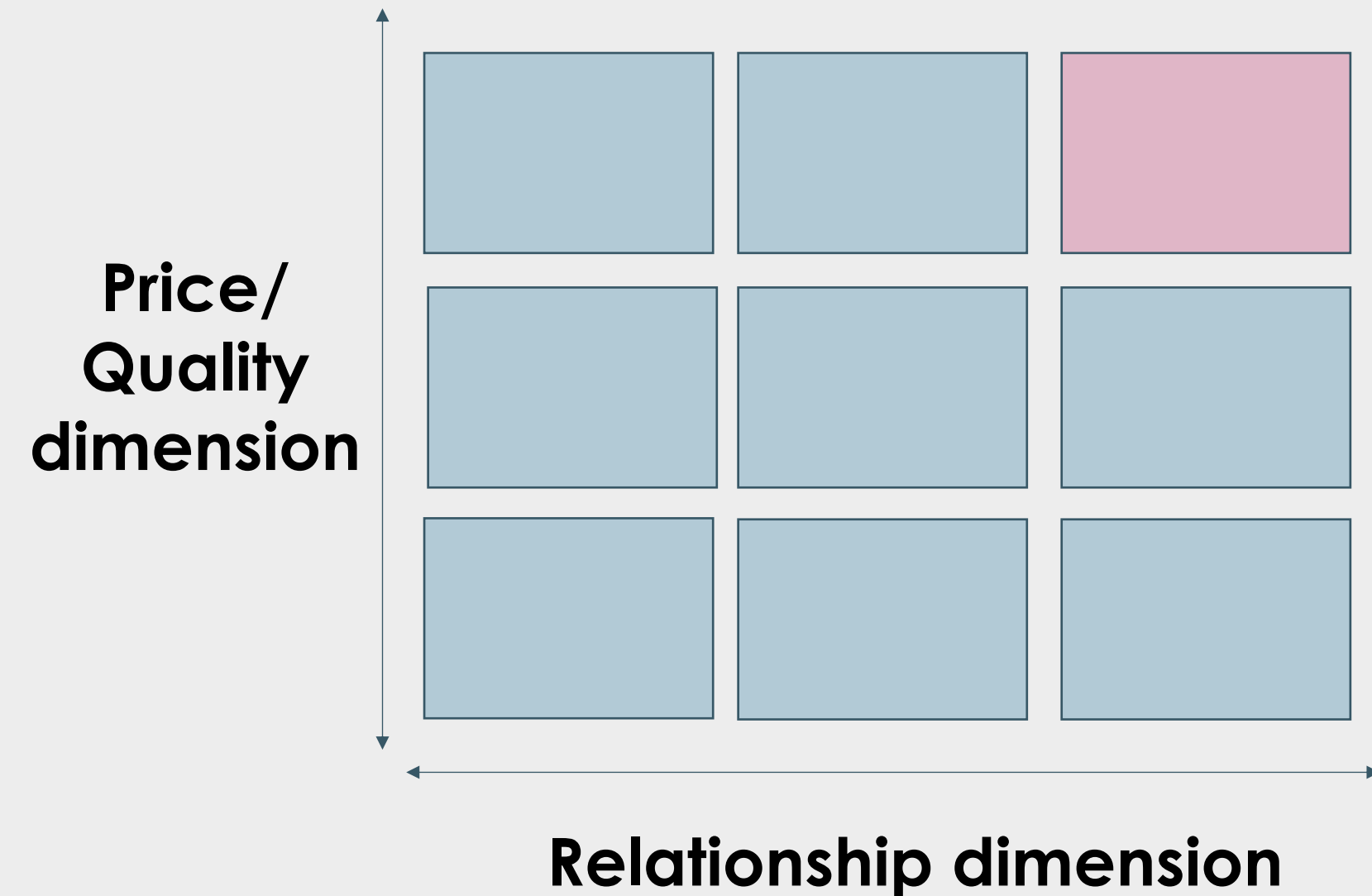
More diverse partners

- Partners within different value chains or further away in the same value chain
- Crossing industrial and sectoral contexts

More pressure

- Competitive pressure
- Regulatory pressure
- Societal pressure

TACKLING COLLABORATIVE CHALLENGES



Let's start with the obvious – not everyone is marriage material

- Careful partner selection
- Writing detailed contracts, or at the very least, a clear letter of intent
- Establish joint work processes, clear work division, KPIs, etc.

TACKLING COLLABORATIVE CHALLENGES

1. Align the sustainability vision

- Preempt conflict between different sustainability goals (e.g. safety vs. carbon dioxide emissions)
- Preempt conflict that arises because of different understandings of what is “sustainable”

TACKLING COLLABORATIVE CHALLENGES

1. Align the sustainability vision

- Preempt conflict between different sustainability goals (e.g. safety vs. carbon dioxide emissions)
- Preempt conflict that arises because of different understandings of what is “sustainable”

2. Align the business goal with the sustainability goal

- Preempt conflict that arises between what is good for the environment vs. good for business
- Preempt conflict that arises between what is one firm’s gain is another firm’s loss

TACKLING COLLABORATIVE CHALLENGES



3. Nurture long-term partnership commitments

- Think of it as a marathon, not a sprint

1. Align the sustainability vision

- Preempt conflict between different sustainability goals (e.g. safety vs. carbon dioxide emissions)
- Preempt conflict that arises because of different understandings of what is “sustainable”

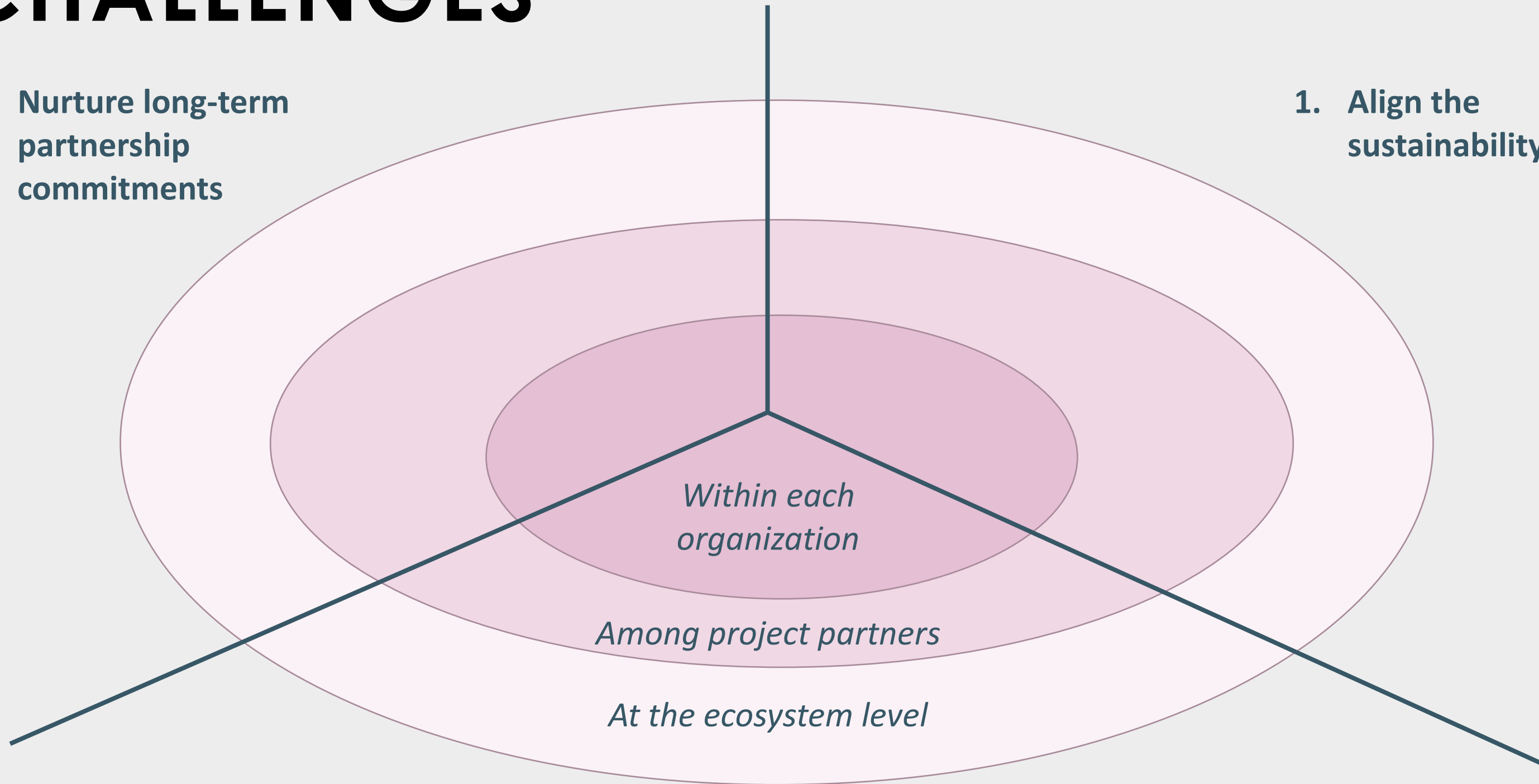
2. Align the business goal with the sustainability goal

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TACKLING COLLABORATIVE CHALLENGES

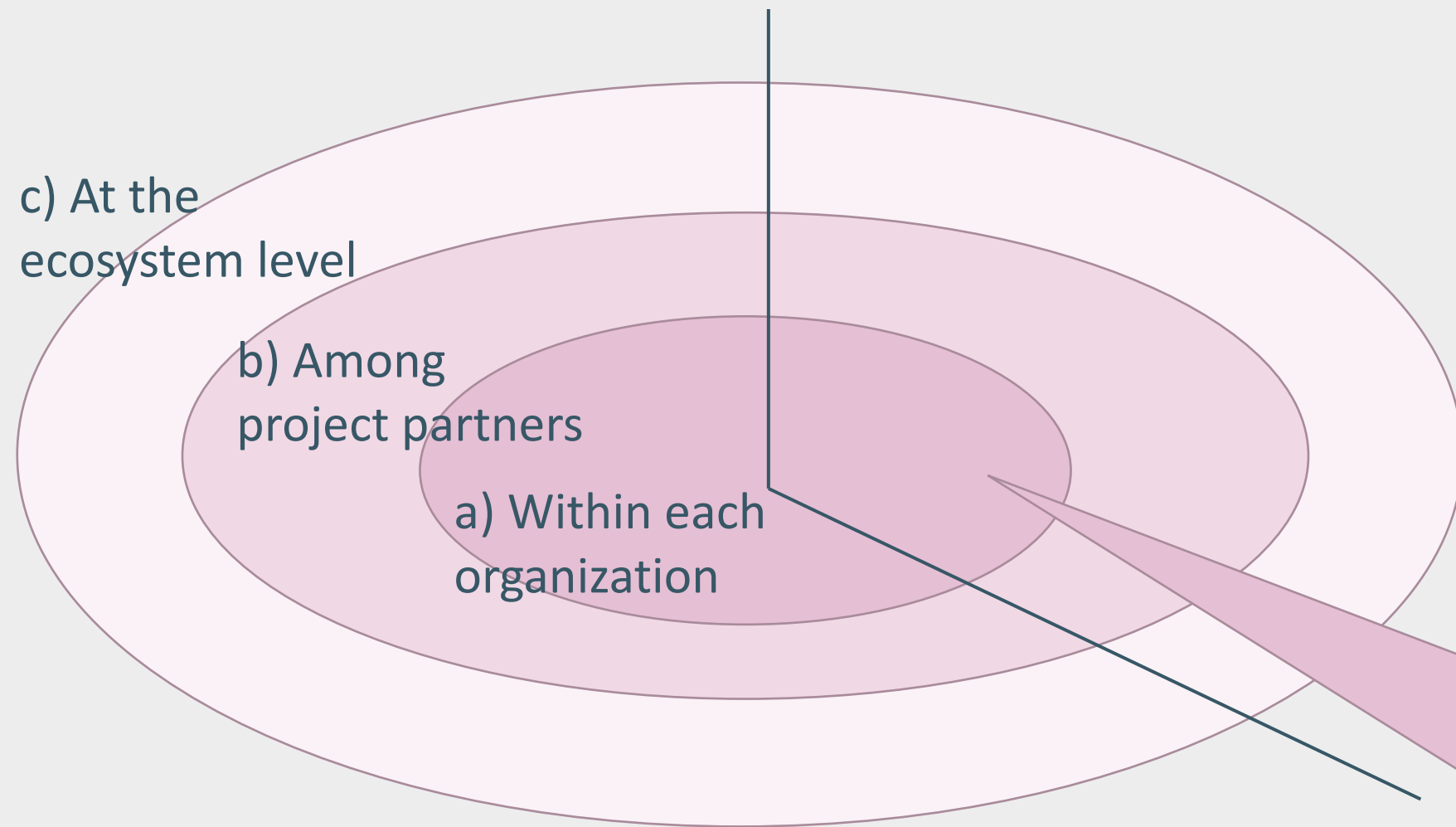
3. Nurture long-term partnership commitments

1. Align the sustainability vision



2. Align the business goal with the sustainability goal

1. Align the sustainability vision



They've just pushed it down without asking engineers what's a good way of doing this. They're like, "This is the solution. We have to make this happen."... It would have been more motivating to work in the project if they had some workshops and some brainstorming around this.

1. Align the sustainability vision

c) At the ecosystem level

b) Among project partners

a) Within each organization

It's a matter of beliefs. You cannot possibly know what will happen in 2045, but you can have beliefs in some megatrends... You need to **negotiate, convince, and calibrate your different world views...** If you don't have that alignment from the start, that's where you need to put in the force.

1. Align the sustainability vision

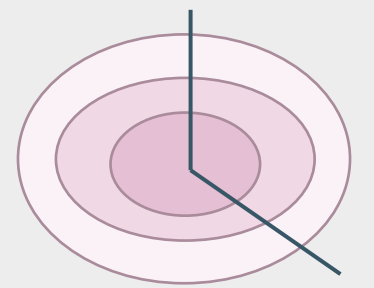
c) At the ecosystem level

b) Among project partners

a) Within each organization

We started with mapping all the emissions in Sweden. To see where we have the big emitters and how we could play a role in helping them to decarbonize. ...
We cannot be everywhere. We need to ensure that we focus where it really matters.

1. Align the sustainability vision

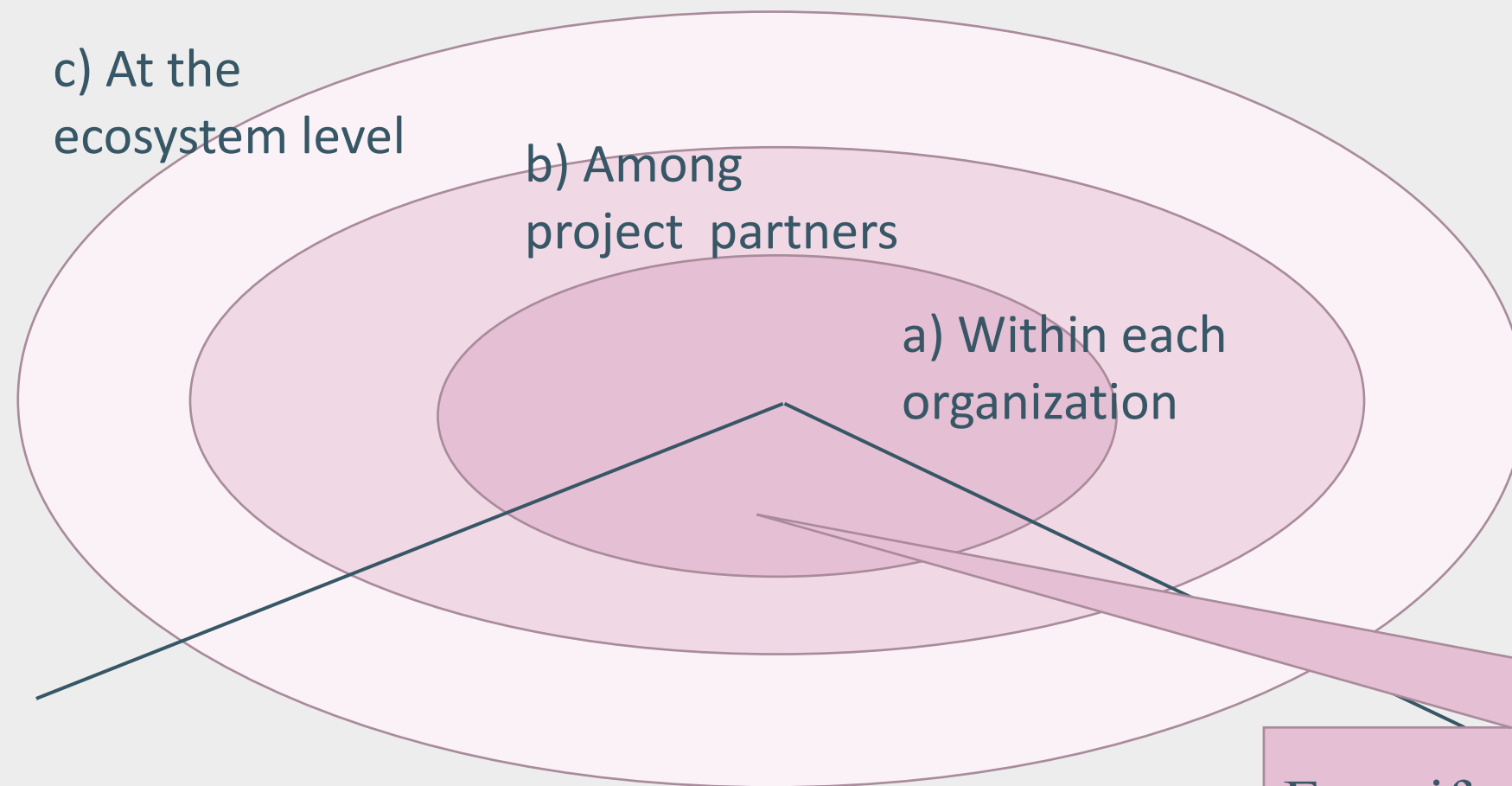


What to do

- Preempt conflict between different sustainability goals (e.g. safety vs. carbon dioxide emissions)
- Preempt conflicts because of different understandings of what is “sustainable”

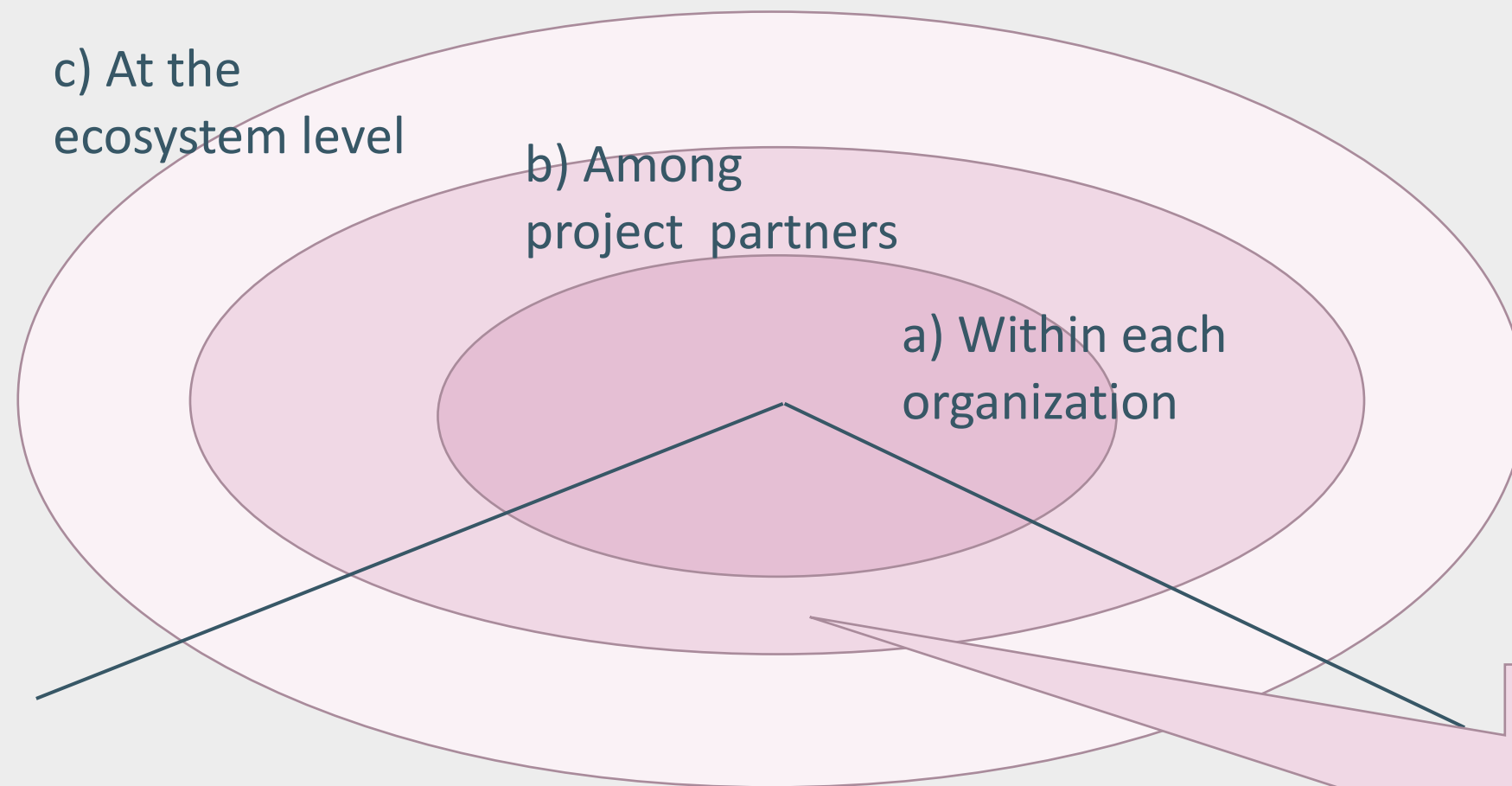
How to do it

- a) Within each organization:** Align with organizational prerequisites
- b) Among project partners:** Harmonize attitudes, get senior manager buy-in
- c) At the ecosystem level:** Attune to regulatory conditions and ecosystem structure. Reflect on wider implications



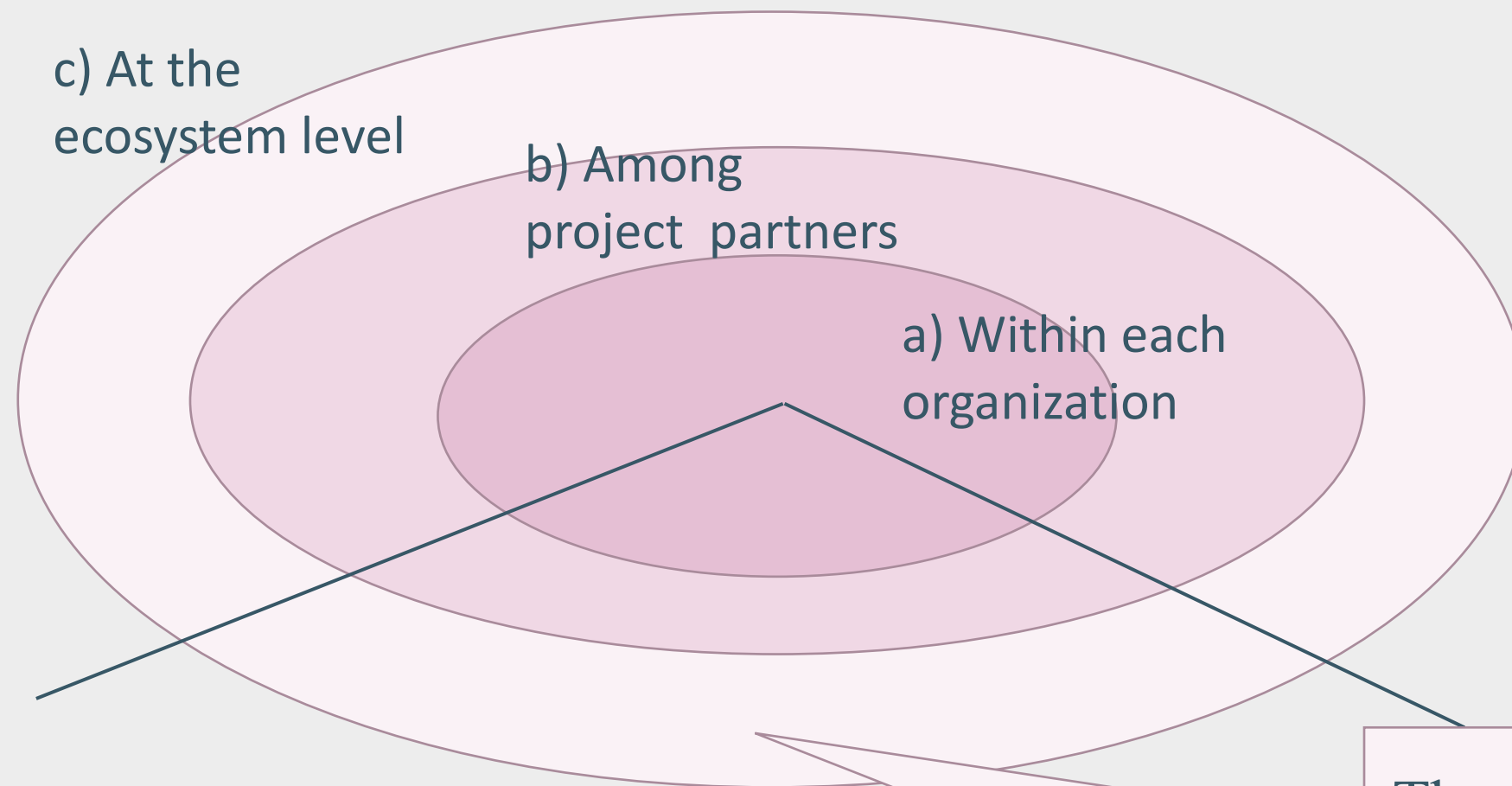
Even if we took decisions on a higher level, we needed to get these decisions to flow down in the organizations. This requires **breaking down the fluffy decisions to KPIs**. That didn't happen in the early stage, so the engineers in each company really didn't do what we expected them to do...If the projects are too big and fluffy it's difficult to measure the results.

2. Align the business goal with the sustainability goal



We only have a letter of intent that guides us ...I think if you should find out something new or do some big findings and big development things, then **a formal contract can be too narrow and constraining.**

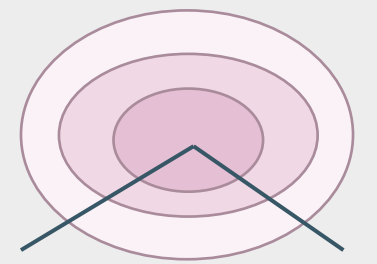
2. Align the business goal with the sustainability goal



The mistake we made was that we should have brought other groups within the [regulatory body] on board. Not only the engineers from the [regulatory body] – they already liked the project, **we should have communicated better also with the groups that are actually putting up requirements for procurement.**

2. Align the business goal with the sustainability goal

2. Align the business goal with the sustainability goal



What to do

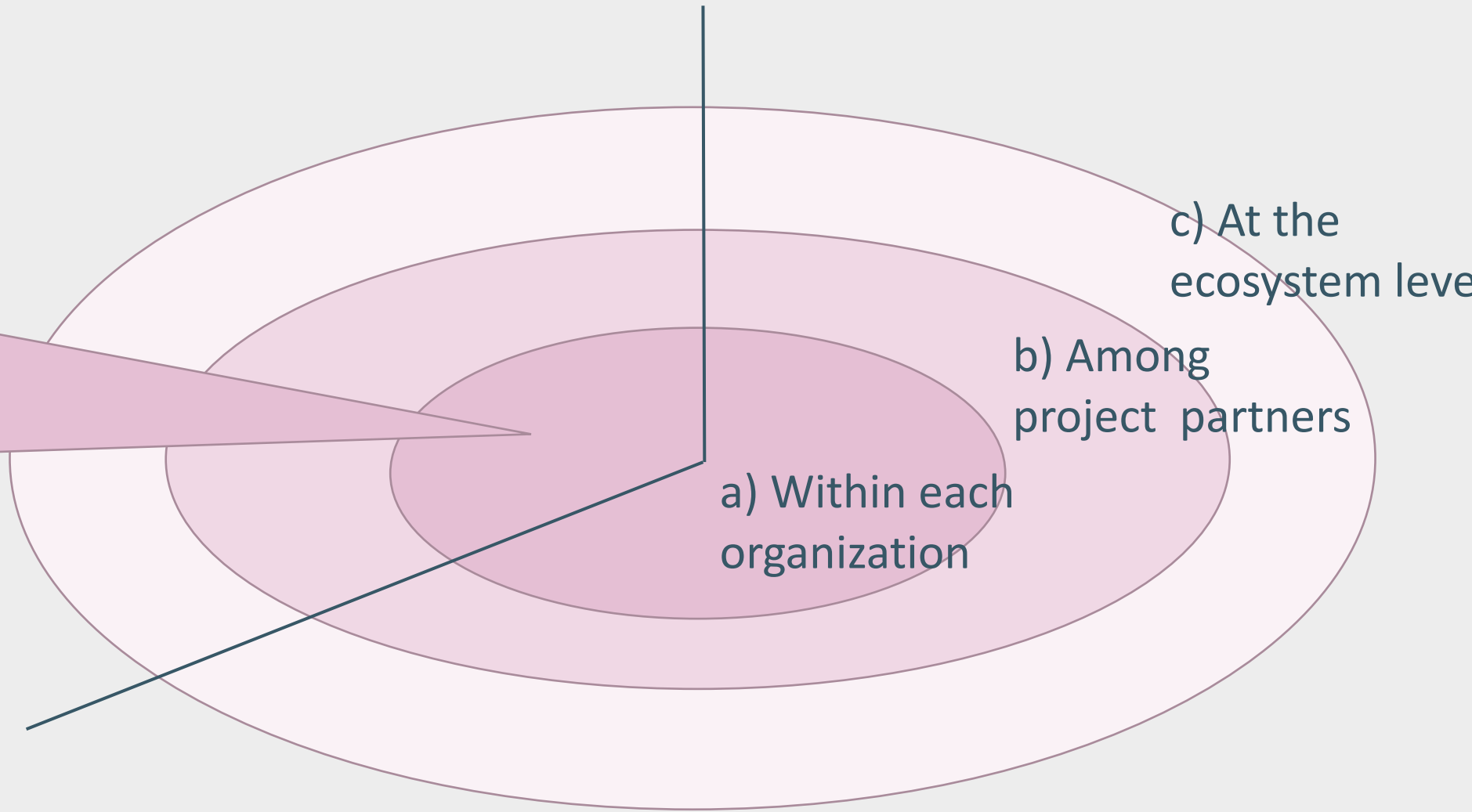
- Preempt conflicts between what is good for the environment vs. good for business.
- Preempt conflicts between what is one firm's gain is another firm's loss.

How to do it

- a) Within each organization:** Discuss the economic and sustainability goals among intra-organizational members – discuss them as separate but interlinked.
- a) Among project partners:** Negotiate semi-formal agreements but be open to change. Requires trust and long-term commitment.
- b) At the ecosystem level:** Coordinate external outreach efforts: lobbying towards regulatory bodies, public relations, and value chain initiatives.

3. Nurture long-term partnership commitments

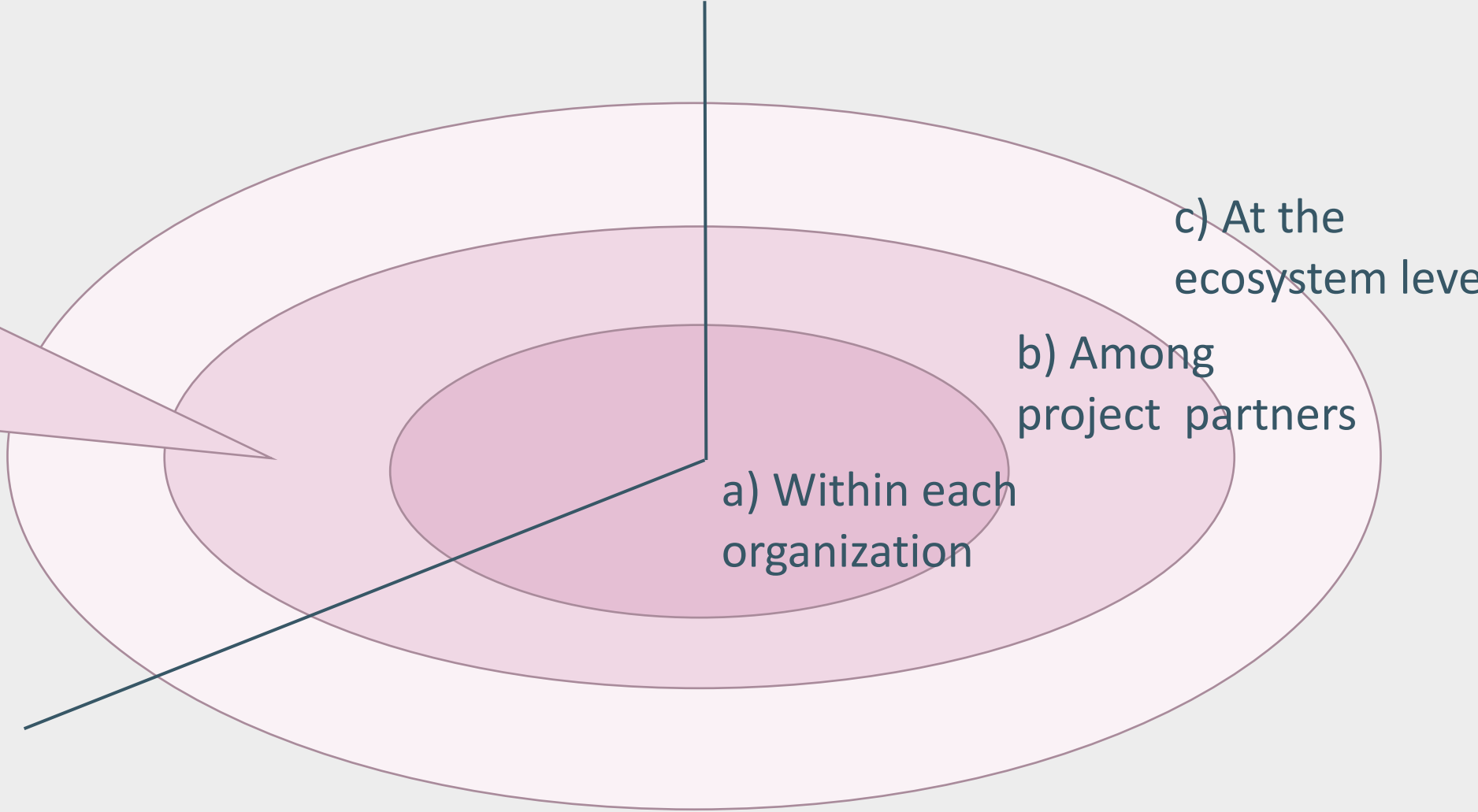
I think we have to be flexible. Not asking for too much participation... **As a project leader, I must be flexible with my colleagues' participation. Have an understanding that they don't always have 100% of their time they can put into this.**



3. Nurture long-term partnership commitments

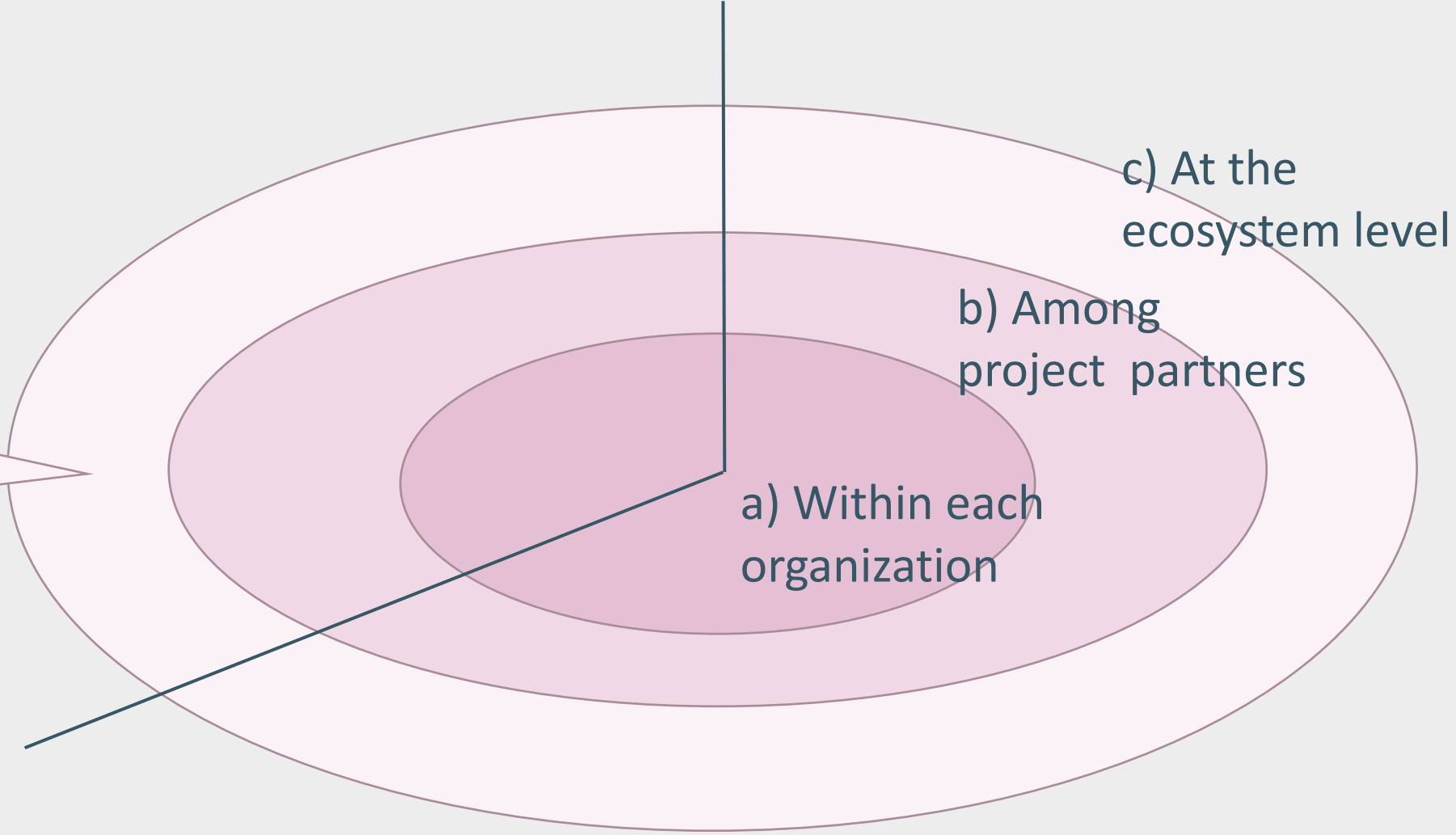
We need to have dinner and a coffee sometimes. You need to show that you are **willing to help without charging for it.**

The **CEOs should meet, at least yearly.** ...Because it was very new. It was between companies from completely different industries.

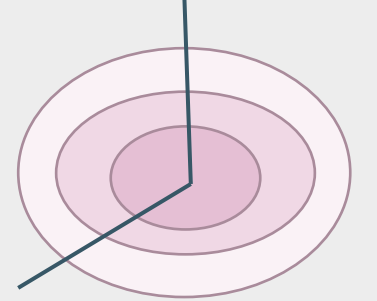


3. Nurture long-term partnership commitments

Reach out to competitors and say, "Hey, this is an issue"... You need to **have the stakeholders engaged** and willing to listen to you from the start...If it only interesting to [Company C], why would they care?



3. Nurture long-term partnership commitments



What to do

- Think of sustainability collaborations as a marathon, not a sprint.

How to do it

- a) Within each organization:** Onboard people at different levels, align with the objectives of the business lines and avoid making it a fight over resources.
- b) Among project partners:** Build and nurture trust at different levels (engineers, project managers, senior managers, and so forth).
- c) At the ecosystem level:** Mend the weak points at the ecosystem level, and mobilize value chain “gate-keepers.”

SOME CONCLUSIONS

- Need to think beyond “my firm” and do analysis at the project and wider ecosystem levels
- Business goals and sustainability goals need alignment (and are not necessarily in conflict)
- Collaborative projects for green transition is a long game
- Collaborative projects for green transition are often outside of existing value chains and/or conducted with more distant partners