TABLE 2 Examples of Representative Evidence and Quotations for the Conception Stage

Company	Core business	Lifecycle stage	Type of innovation	Illustrative examples	Framing
Rad-Con 1	Privacy of online shopping	Conception	Radical	Like when you just rely on software, it's—first of all, it's very abstract to a lot of people, right? So, most people don't know how to code. Most people don't know how a smartphone works or how an app works. So, to pitch an idea to someone who's completely nontechnical. And also, if your idea on your side is not really worked out, it becomes a really big mess, you know, because people will not understand you and you feel … stupid because you cannot explain your idea very well. So, this is one of the very early on challenges … because it's abstract, so people don't really know …I think one of the bigger hurdles that we have as opposed to, you know, the food start-ups [is] they say, "Hey, I invented a new protein powder." It's very tangible. You know, it's very understandable. … there's those people that go to the gym that will immediately have a picture of the product—how it's being consumed, who consumes it at what time. But the software's just it's just some something in the air. So, I feel this is one of the biggest challenges—to make it really tangible, attractive and explainable to especially investors, because that's where it comes in important—you know, that they really understand what you're trying to do. And this is why I think a lot of software start-ups get money only at later point when they have built something so they can see something and play around with it.	Familiarity with the innovation
Rad-Con 2	Ultrasound sensor for bladder	Conception	Radical	On the one hand, that we make a complex technology very simple. … so that the product we make … [is] intuitive, and … very user-friendly and that we make medical technology very accessible to lay people, so to speak.	Familiarity with the innovation

Rad-Con 3	Platform connecting to other people for supermarket shopping	Conception	Radical	On the one hand, it's always easier to do something that people already know. People are creatures of habit and it's no secret that the online food trade in Germany is getting off to a really bad start, especially compared to other countries. This reflects the fact that Germans per se like to do what they already know and are used to, and find it somewhat difficult to get food delivered, for example. Of course, it is difficult to get away with something radically new. For us it is very difficult to assess how our product will be received. But on the whole, we try to break the norms, but to stay with the norm.	Familiarity with the innovation
Rad-Con 4	A smart system to help tenders	Conception	Radical	What we did now is that we provide a free version for one month, focusing on the top two pain points most companies have. And now in my outbound prospecting, I'm using that as a kind of a way to get into conversation.	Familiarity with the innovation
Rad-Con 4	A smart system to help tenders	Conception	Radical	We start collaborating all for free. No credit cards or financial consequences. You only need to spend some time with us. Provide feedback, provide them documents and then hopefully, they get enthusiastic about it.	Familiarity with the innovation
Rad-Con 5	Online platform for local retailers; after ordering, the products are sent to the end customer via the platform's logistics	Conception	Radical	In the beginning we had the difficulty that it was still too complex for the retailer. [For] example, we wanted the retailer to send us product images. Then we found out relatively quickly that, firstly, the retailer sometimes simply doesn't have a computer in the store. … And, he might not even be in the mood for it, or he might not say he has time for it. And then we quickly realized, "Okay. That's not possible at all. They don't want to do it." Some of them never contacted us again because they didn't feel like sending any pictures … And many retailers are also totally afraid of digitalization and are also directly scared. That's why we have made this free savings package.	Familiarity with the innovation
Rad-Con 6	Floor sensor	Conception	Radical	If we are looking for a new pilot location, and that pilot location already happens to have an existing system	Familiarity with the innovation

				installed, and that party has developed a new camera system with which they can offer quite the same application as us. Then you can see that they choose the camera system more easily, because they already know that party, and are familiar with that. … It's hard to get in the way of that, no matter how beautiful your story is.	
In-Con 1	Skin care product for athletes	Conception	Incremental	*Researcher:* What is at the top of your agenda right now? *Informant:* Customer education, because we've developed a product that's not yet on the market. So, that's gonna be a challenge. To communicate to people exactly what the added value is, and then implementing this with emotional marketing—that's a big deal.	Novelty of the innovation
In-Con 1	Skin care product for athletes	Conception	Incremental	In brand communication to customers, this will be more in the direction of highlighting the uniqueness of our concept. In our opinion, the US concepts are more typically American marketing-focused, and we want to show the added value for athletes and also the advantage and support in sports. We want to differentiate ourselves from others. Nevertheless, I think it makes sense to show investors the competitive situation in order to make the market potential clear.	Novelty of the innovation
In-Con 1	Skin care product for athletes	Conception	Incremental	In our communication, we have attached great importance to the fact that we all come from the target area and have expertise in there … that we have developed innovative formulas that really help the customer.	Novelty of the innovation
In-Con 2	A smart machine that serves healthy food within a minute	Conception	Incremental	We want to show the people that right now there is something done way better than it was.	Novelty of the innovation
In-Con 2	A smart machine that serves healthy	Conception	Incremental	The reason for us to step into the food industry and … make the product reliable [is to] let the people see that they can have better food with technology.	Novelty of the innovation

	food within a minute				
In-Con 3	Connecting retailers or small shops with mentors	Conception	Incremental	We're already relatively artistic and a bit creative—but the sentences have to be on point, so that you don't get the feeling that this is somehow the kindergarten group that has somehow come up with a concept. But we've already tried to describe serious content and the content in general as briefly and as well as possible, so that if someone reads it seriously, they have a good feeling, detached from the design. We want to pick people up as best we can and bring across a seriousness.	Novelty of the innovation

TABLE 3 Examples of Representative Evidence and Quotations for the Commercialization Stage

Company	Core business	Lifecycle stage	Type of innovation	Illustrative examples	Framing
Rad-Com 1	Face recognition sensor for retailers	Commercialization	Radical	I do not explain the technology behind it. It's about the benefits. I say it's a little artificial intelligence with video analytics, and we make those and the features, those and the benefits you get. So, in that sense, it's relatively clear.	Distinct value of the innovation
Rad-Com 1	Face recognition sensor for retailers	Commercialization	Radical	You don't do feature selling, but rather benefit selling.	Distinct value of the innovation
Rad-Com 2	Online platform for local retailers; after ordering, the products are sent to the end customer via the platform's logistics	Commercialization	Radical	We have created a product information sheet—that is, a one-pager as PDF. It explains in a clear and understandable way what our process looks like from our customer perspective—what he has to do or what we offer him or what we do. So for the first step, contact us. Second step, we visit you and take photos, product descriptions. Third step, advertise the new shop so people will buy it. … and then at the end of the day, of course, what it all costs—that it's a free version and then just the commission that's given. That is then already more understandable. But in detail, what this means digitally or how the process is, honestly not. But I wouldn't even know how to convey that to them.	Distinct value of the innovation
Rad-Com 3	A technology that allows you to transmit data via audio	Commercialization	Radical	We have a chart on the subject of "digitalization is coming faster than you think"—an Apple Watch as a comparison to the Swiss watch manufacturers. Nobody would have thought that the Apple Watch would achieve higher sales within three years than the Swatch Group, i.e., Omega, and the same in the automotive sector with Tesla. Now, of course, they will have a few problems there as well. But if you just look at the figures and see how the business is developing, they're really far ahead. And that also shows	Distinct value of the innovation

				that if you don't dare, you don't win. If you don't go for new technologies and try something out, it can absolutely backfire.	
Rad-Com 4	Monitor patients in hospital beds	Commercialization	Radical	You have to demonstrate—a well-known term—the effectiveness. Efficiency does not mean it works, but actually efficiency is: What does it actually bring? What's in it for you? ... In our case, for example, that we reduce the length of stay by 8%, that we reduce mortality, that we reduce the number of people who have to go to the ICU and the like. Well, in any case, we increase patient safety.	Distinct value of the innovation
Rad-Com 4	Monitor patients in hospital beds	Commercialization	Radical	I might want to move towards a positioning in which we are more solution-oriented and I am considering … to be much more market-oriented, to be more solution-oriented than to be a supplier of products. I might want to get away from that.	Distinct value of the innovation
Rad-Com 5	Smart mattress	Commercialization	Radical	It's more about: What does the mattress do now and what does it do for the clients? What does it do for me? How easily can I include the data it provides in a patient file? How did you distinguish between, say, the practitioner and the person who has to carry out the care? How complex is the mattress? Is it easy to operate? Is it difficult to operate? Can patients also arrange things themselves? Well, that's the kind of thing you get.	Distinct value of the innovation
Rad-Com 5	Smart mattress	Commercialization	Radical	*Researcher:* How do you want to be known? *Informant:* In practice, it appears that the mattress will mainly be used for complex clients. So, in patients who are already in their difficult phase. It may also be known that this mattress is the best alternative for when patients have a high level of care. We also always say, "Yes, it is not a mattress. It is more of a concept."	Distinct value of the innovation
Rad-Com 6	Monitoring the drinking	Commercialization	Radical	As a company, we want to be known as the people who know how they can help you, from a question to a solution.	Distinct value of the innovation

	behavior of the elderly				
In-Com 1	Technology course for children	Commercialization	Incremental	We must absolutely be perceived as a quality education provider for the new generations. This has not changed at all with the change of focus from B2C to B2B. Our mission has not changed, and we want to be perceived as a quality service but in different channels.	Reliability of the innovation
In-Com 2	Machine for plastic waste	Commercialization	Incremental	*Researcher:* How do you try to change this perception, to gain more legitimacy? *Informant:* We talk directly with the customers. And so, if you want to make a sale, it's all about removing objections. So, if they say it's unreliable, then it's okay. What do we need to do to prove that it is reliable? And then you get an answer and then it's up to you to prove that.	Reliability of the innovation
In-Com 3	Web push notifications to mobile devices	Commercialization	Incremental	It's important to have some success stories on your website to show other big companies that you are—yeah, that you are a big boy. That you have some serious stuff right there.	Reliability of the innovation
In-Com 4	Online marketing dashboards	Commercialization	Incremental	The delivery, the data delivery quality. So, you can be sure that the data you get from us is always up to date and always complete. So that's one differentiator.	Reliability of the innovation
In-Com 4	Online marketing dashboards	Commercialization	Incremental	*Researcher:* How do you want this product to be perceived by the market? *Informant:* As a very good quality product, which is very easy to use and very powerful.	Reliability of the innovation
In-Com 5	Sensors for energy and water operators	Commercialization	Incremental	*Researcher:* How do you want your new venture to be perceived by the market? *Informant:* As a knowledgeable company who can deliver high quality work fast, and who really solves the problem … We talk a lot to customers and … we talk, we have meetings, and we do presentations.	Reliability of the innovation

TABLE 4 Examples of Representative Evidence and Quotations for the Growth Stage

Company	Core business	Lifecycle stage	Type of innovation	Illustrative examples	Framing
Rad-Gro 1	A tablet that enables the elderly to communicate with family	Growth	Radical	We are regularly approached for, or we approach press ourselves to show new things. For example, we recently became active in Switzerland—we tell the press. There are all kinds of newsletters of digital technology … We often talk about innovation and novelties in that context.	Reinventing the innovation
Rad-Gro 1	A tablet that enables the elderly to communicate with family	Growth	Radical	What you see is that those organizations [consumer associations] judge us much more on innovative capacity and how fast the growth is going and things like that.	Reinventing the innovation
Rad-Gro 1	A tablet that enables the elderly to communicate with family	Growth	Radical	There is a phase that you go from start-up to scale-up. At that moment you want to position your organization or product as "proven technology" while the news value and interest of people often lies in new and innovative [products] … The communication to the stakeholders changes. And with that, the stakeholders also look at you differently …at the moment, we are succeeding well in delivering proven technology with an innovative character	Reinventing the innovation
Rad-Gro 1	A tablet that enables the elderly to communicate with family	Growth	Radical	We can deliver the support to our customers very quickly… and also, being able to respond quickly to new ideas that people have. I think that's powerful. … we like to listen to it [feedback] and look at the possibilities to adjust the company in that direction.	Reinventing the innovation
Rad-Gro 2	Digital restaurant	Growth	Radical	I'm convinced that a digital entrepreneur has to deal with problems like this on a daily basis. It's what's called resilience. You can't afford to stop—as technology is constantly being updated, you have to be constantly updated too, which wasn't the case before. That's why you have to be ready and quick. More than a single problem, every day there are problems of a different nature that are constantly changing. You must always try to	Reinventing the innovation

				analyze the market day by day, identify the needs of the market. So, we are constantly changing, month by month. Like, for example, in this historical period where we had to completely change our business idea.	
In-Gro 1	Offering customers fresh, local food	Growth	Incremental	The customer notices that we are no longer the small, cute shop from the past, but that we are now really a scalable company, which nevertheless remains true to its principles. In other words, the value culture, the vision, this constant will to push regionally, to get fair prices for suppliers—we remain true to ourselves. That has not changed. Only outwardly, the whole experience has become much more professional.	Stability of the innovation
In-Gro 2	A delivery service for beverages	Growth	Incremental	Originally with our USP, we hardly changed anything except that we went from 90 to 120 minutes delivery time.	Stability of the innovation
In-Gro 2	A delivery service for beverages	Growth	Incremental	I think it's still strongly geared towards growth. We will continue to open locations and try to expand in Germany. We can definitely do that, despite Corona & Co. We are definitely still on course for growth in the coming years. 20 locations are not enough.	Stability of the innovation
In-Gro 3	Decentralized network for artificial intelligence	Growth	Incremental	I think a good leader of a company will be able to persuade all shareholders and whatever else. I think that the best way to persuade shareholders or the public or anybody is to stay very true to your roots, to stay true to your vision, and to assure them that you're on course no matter how hard things get. So, I think no matter what path we choose to go on, as long as the roots of that path are still connected to our vision and our mission, then we can convince anybody of anything. But definitely, I think as a person, as an individual, as a business, as a leader, you need to make sure that you are always aligned with the things that you've committed to.	Stability of the innovation