APPENDICES

ORCHESTRATING IN THE ERA OF CROSS-SECTOR ECOSYSTEMS

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APPENDIX A

Literature research
Research questions:

1. Understanding the concept of innovation ecosystems
- What is an innovation ecosystem?
    - History of ecosystems
    - Governance of an innovation ecosystem
    - Hierarchy
    - Forms
    - Roles
    - Drivers/barriers of an innovation ecosystem
    - Adoption process of an innovation ecosystem

2. Understanding the Financial industry
- How does the landscape look like?
    - Players
    - Key characteristics
- How do banks work?
    - What is their focus?
    - How do they innovate?

3. Understanding the concept of DLT
- What is DLT?
- Which types of DLT exist?
- Which type of DLT is most applicable for ecosystems?
- What are Permissioned ledger systems?
- How will DLT impact the Financial service industry?
- What are the drivers and barriers of implementing a DLT solution?

Preliminary Interviews
Research objective;

1. Gain more profound and practical understanding of the innovation ecosystems concept
- How is an innovation ecosystem defined?
- Are there different types of IE's?
- What are the main drivers and barriers of adopting an innovation ecosystem?
- How does the adoption process of an ecosystem look like in practise?
- Why do companies adopt or participate in an innovation ecosystem?
- What roles are present in an IE?

2. Gain deeper and more practical understanding of DLT
- What are the DLT developments in the financial service industry?
- What is happening in the world of DLT?
- How is the perception of DLT changing over time?

3. Formulate hypotheses that can be validated in the case studies

Case study research
Research objectives:
1. Distill the extra considerations that need to be taken into account when adopting an ecosystem for a DLT solution (within the banking sector)
- Is a DLT ecosystem significantly different from other ecosystems?
- What are knowledge requirements of companies within the Financial Service industry to adopt an ecosystem with a DLT solution?
- What DLT specific barriers present themselves when adopting an ecosystem in the FS?
- What are the motivations of banks to participate in an ecosystem?
- What are bank specific barriers to adopting an ecosystem?
- What roles are required when adopting an ecosystem for a DLT solution?

2. Validate hypotheses

3. Create a strategic framework representing the insights

APPENDIX B

Definitions innovation ecosystem

Adner (2006)	"The collaborative arrangements through which firms combine their individual offerings into a coherent, customer-facing solution" (p. 98).
Carayannis & Campbell (2009)	"...Where people, culture and technology meet and interact to catalyze creativity, trigger invention and accelerate innovation across scientific and technological disciplines, public and private sectors and in a top-down, policy-driven as well as bottom-up, entrepreneurship-empowered fashion" (p. 202-203).
Dedehayir, Mäkinen, & Ortt (2018)	"Innovation ecosystems describe the collaborative effort of a diverse set of actors towards innovation, as suppliers deliver key components and technologies, various organizations provide complementary products and services, and customers build demand and capabilities." (p. 18)
Dodgson, Gann, & Phillips, (2013)	"a network of interconnected organizations, connected to a focal firm or a platform, that incorporates both production and use side participants and creates and appropriates new value through innovation."
Golnam, Ritala & Wegmann (2014)	"We view an innovation ecosystem as a business ecosystem, which aims at creating and capturing value from innovation activities (related to either technological or business/entrepreneurial innovation)" (p. 5).
Iansiti and Levien (2004)	"[…] the performance of these […] firms derives from something that is much larger than the companies themselves: the success of their respective ecosystem. These loose networks – of suppliers, distributors, outsourcing firms, makers of related products or services, technology providers, and a host of other organizations– affect, and are affected by, the creation and delivery of a company's own offerings." (p. 01) "Most companies today inhabit ecosystems that extend beyond the boundaries of their own industries" (p. 02)
Jackson (2011)	"The complex relationships that are formed between actors or entities whose functional goal is to enable technology development and innovation."
Luoma-Aho & Halonen (2010)	"We define innovation ecosystem as a permanent or temporary system of interaction and exchange among an ecology of various actors that enables the cross-pollination of ideas and facilitates innovation" (p. 4).

APPENDIX C

Initial research results

The sixteen preliminary interviews resulted in three hypothesis that were validated in the multiple case study. Each of the hypothesis, touch upon a different element that is important in the adoption process of an innovation ecosystem.

1. INTERNAL PREPARATION: INTERNAL PREPARATION THAT INCLUDES ASPECTS SUCH AS AN ECOSYSTEM MINDSET IS REQUIRED BEFORE ECOSYSTEM ADOPTION
All the parties in the ecosystem need to understand that it is about the success of the ecosystem rather than the success of the individual companies. This might mean that a decision is suboptimal for one individual company, but it needs to happen in order to make the ecosystem succeed. 'That asks for a different mindset, because you cannot only look at your own role and make sure it works the best for you. If you do that, you get a suboptimal solution for the ecosystem, which will in the end harm yourself even more.'

The change in mindset that is required to function in an ecosystem can be seen as a big hurdle. People are not used to work together with people outside their own organization, especially not when it comes to competitors. 'Everyone thought it was weird to work together with *competitor* and other competitors.'

This asks for a more top-down approach, so people are somehow forced to adopt this new mindset and the company is organized that way. 'Internally you need to make sure that companies see that they have to change. That they really create the projects that embrace these new technologies with the right people from the organisation. The processes internally need to connect to this.'

Another aspect that needs to be taken into account before adoption is the character of financial institutions. Everyone wants to have a seat at the table and is enthusiastic, but when it comes to really committing, most companies do not 'dare' to invest in the technology. The risk is hard to calculate in the ideation and experimentation phase, this could be seen as a big bottleneck. 'Then they immediately ask, what is the risk? But you don't know that yet.'

2. ECOSYSTEM ADOPTION PROCESS: EVERY ECOSYSTEM INNOVATION STARTS WITH A VALUE AREA THAT IS FORMALIZED IN A SHARED VISION AND CONTINUES FOLLOWING A NORMAL INNOVATION PROCESS.

All individual companies need to understand the 'pains' and 'gains' of participating in an ecosystem. It will cost money, it is uncertain and there will be some extra collaboration issues (as you collaborate with competitors). However, if the ecosystem succeeds, more value will be created than innovation that comes out of a 'closed' company.

It is believed every innovation should start at the intersection of a trend, technology and customer need. This sweet spot is called a value area.
'It can never be only a technology. So blockchain on itself is no value area. That would be something like blockchain contracts in our channel to the client'

Even though several approaches are taken, the steps are almost the same to a normal innovation project, including 'go/no-go' moments. 'You keep innovation so the process stays the same'

An ecosystem strategy and vision is crucial for the success of an ecosystem. The ecosystem vision need to be specific enough so everyone feels engaged. But also broad enough so all the partners can put their own specific goals underneath it. This ecosystem strategy needs to be linked to the innovation strategies of the parties involved.
This innovation strategy again needs to be connected to the corporate strategy otherwise the innovations that are created do not add value to the vision of the company.
'If the innovation strategy is not linked to the corporate strategy, you put your money in something that is not going to create any value because it is not in the direction where the company wants to go.'

Furthermore, you need to have transparent communication so that strategic changes in the corporate do not prevent the ecosystem from move forward.

An important timeline in the process of adopting a ecosystem is the phase from no idea - idea- concept- business plan, needs to be less than four months. That way you have less problem with corporates strategies that change, and you don't waste time and money on a project that will not generate value. 'If it turns out that it won't work after three months, we can still be good friends, but you don't waste money and effort.'

Also it is important to make it as concrete as possible, early in the process. 'We want to make it concrete as fast as possible, so we start with filling in the lean canvas. This way you prevent drinking a lot of coffee but not achieving anything.'

3. COLLABORATION: DISRUPTIVE INNOVATION DEMANDS A COLLABORATION IN WHICH ROLES AND RESPONSIBILITIES ARE DIVIDED BASED ON STRENGTHS, THE NUMBER OF PARTNERS IS LIMITED AND WHERE EACH PARTNERS IS INVOLVED EARLY IN THE PROCESS.

Importance of collaboration
For creating disruptive innovation, it becomes clear that, it is crucial to partner with other companies. Especially for dutch companies where scaling could be a problem. 'For disruptive technologies you must partner.'

An example of this is the proposition to implement one payment system nationwide, also known as iDeal. This wouldn't have worked if you kept it inside only one company. You need the maturity of the market to bring such a solution to the customer.

However, partnering in an ecosystem is a difficult topic and organisations are still sorting out how to deal with this in the best way. 'It is extremely difficult for organisations to adopt an ecosystem. Who are involved? what partnerships are formed? what will the roles be? what is the created value? how will this value be distributed?'

Roles
Not all partners in the ecosystem have to work together on a 1 to 1 relation. Everyone should have their own responsibilities otherwise not all parties are equally engaged. These roles and responsibilities should be divided based on the strengths of each partner. 'If an ecosystem works well, everyone has their own role and works from their strengths'

In the beginning of the process, these roles can be divided informally. However, when the product will be launched, formal roles have to be appointed. 'The more successful it becomes, the more you formalize it'

Within an ecosystem, you need different kinds of skills: ideation and experimentation skills (design thinking, lean startup, service design, rapid prototyping), skills for scaling and engineering capacity. So it is important to take this into account when partnering and setting up responsibilities.
'Within the experimentation phase, you need different skills then when you are scaling'

When it comes to a leading role in the ecosystem, big corporates have the tendency to take the lead in partnerships. However for the success of the ecosystem this is not always ideal. Companies need to understand that they can have different roles in different ecosystems, and that it is not 'bad' to have another role than the orchestrating one. This connects to their tendency to say 'it is mine'. An ecosystem is not the ownership of one party, like it is with a normal supply-chain.
'I think the biggest risks is the tendency of corporates in the Netherlands is to say 'this is mine', that mindset of yes you can join but it still stays our little party.'

Moment of partnering
The moment to involve partners differ per project. In some cases, the orchestrator fully works out the idea and starts building, then they involve partners. In other cases, partners are involved earlier in the process and they co-create the solution. The third way is to join an existing ecosystem.

However, it is important to involve all partners from the beginning to create commitment and engagement. The later you involve partner, the more you go to an old relationship of client- supplier (see figure ...). 'The later you involve them, the smaller the playground will be for them to choose their role in the partnership as the proposition becomes more clear. If you involve them early on, they can still help developing. In a later stage, it becomes more a 'commercial' partnership, which is more in the direction of a supplier-client partnership.'

The type of partnerships in ecosystems are more based on trust. As innovation is an exploration, you cannot put everything in a contract. 'This makes it often more exciting or scary, if you enter an equal partnership, you have to commit by trusting each other'. Companies are still exploring this balance. 'we are still exploring this aspect, which things do you need to formalize, and which things can you do face-to-face based on trust?

The advantages of an equal partnership are first of all the possibility of all partnership to learn and develop new skills. Secondly, you have more commitment from all parties as they are also dependant on the outcomes. Lastly, with this shared level of commitment, also comes shared risk. This way the total risk is divided among all partners.

Types of partners
For a long lasting ecosystem (like the high tech campus in Eindhoven), it is important to have different kind of companies involved. Startups, corporates, and universities: the triangle of knowledge. 'So you actually want a mix of big companies, small companies, universities, research institutions'.

For a more project focused ecosystem, this is not necessary perse, it depends on what each company brings to the table. Another aspect of this is that it could also change over time, in the beginning of setting up an ecosystem, universities could be very helpful, but maybe after a while, the project needs speed and building capacity, then the need for knowledge becomes less. They are more active in the non-concurrential phase. 'Knowledge institutions now have a less natural place in the ecosystem. There is also a difference in speed. Now you need practical experience, to act fast.'

Especially in project focused ecosystem, the support of regulating companies is key. 'especially banks become aware of that what they want to achieve can only be done with the support of the government: KYC, SSI, Authentication, identification. if one of them finds the holy grail, they won't succeed without governmental support'.

Besides the understanding the strengths of each (type of) partner, the weaknesses need to be clear as well. Working together with startups is brings some unique difficulties. A startup is hard to scale, that is because of all the regulations and processes that are in place. They often lack the right people or the money. On the other hand, corporates are very bureaucratic, you have to check a lot of boxes before anything happens. Furthermore, the corporate strategy that has a slightly different focus each quarter makes it hard to plan for the long run. 'Doing a pilot or experiment is quite easy to organise with corporates. However, scaling is more difficult, then you get management tensions. If the strategic priorities shift, it could happen that the partnership won't work anymore. With startups they most of the time don't have the money'.
Validation of literature research insights with preliminary interview results
When connecting the preliminary interviews to the innovation ecosystem literature research that was done before, the following conclusions can be made. First of all, the steps of the birth phase are not followed explicitly. However, the aspects that are seen as important to take into account, were thought of in practise but not chronologically.

The roles that are identified in the literature of innovation ecosystems are also not assigned explicitly. That is because for most companies ecosystem innovation is still a very new topic and they are still looking for a personalized process that works for them. What can be concluded here is that companies want to find a personalized process and way of working that suits their needs instead of following an academic process.

Some of the drivers and barriers identified in the literature, were not mentioned during the interviews. This does not mean that these do not uphold. However, not-mentioned aspects might not be as important as the ones that did match. The ones that were mentioned during the interviews include: the win-win situations for all parties, the difficulty in collaboration and the earlier parties are involved the better.

When looking at the DLT literature in chapter three it can be concluded that the motivations to invest resources in DLT development are coherent with the insights gathered from the expert interviews. Furthermore, it can be concluded that DLT is gaining attraction and momentum in the financial sector but is not fully ready to be adopted on a large scale due to regulations and lack of scalability.

MULTIPLE CASE STUDY INSIGHTS

The main insight from the multiple case study was the fact that the cases did not differ much in their opinions about how DLT consortiums should be adopted. This is because they participate in the same consortiums and therefor face the same problems and situations. However, it was helpful to take these cases because this way it was possible to include the internal perspectives of the companies instead of only the consortium perspective.

Motivations to join a DLT ecosystem

There are several reasons why companies are interested in DLT and joining DLT ecosystems. First of all, it works well for the image and branding of a company. The company gets a more innovative character which is good for the marketing and ultimately sales of the company. This was especially true in case 1, where pension funds joined the consortium: 'We wanted to go along with the world around us, outside our dusty office'. Secondly, companies see their customers become more 'data-conscious' and expecting more transparency than before. Regulations are also going in that direction (for example the GDPR-law). Thirdly, the market is changing and there are entering more and more disruptive startups, causing existing companies to rethink their innovation practises. Fourthly, investing in DLT has enormous cost-saving potential, as intermediaries and a lot of the administrative costs can be eliminated.

However, there are also some conditions associated to joining a DLT ecosystem. First of all the technology is not fully mature yet, which makes it more difficult and risky. Especially in case 1 this was an issue: 'The technology is not mature enough. When you want to make pension calculations, you need to be able to root. This was not possible so our actuaries could not work with it. Then you see the boundaries of the technology.'

Another barrier is the lack of a good business case. This was stressed by all four cases: 'It is mostly about showing the market the value of the product, that there is a business case'. It needs to be clear, what it will offer them in financial terms.

Furthermore, the customer experience and a clear vision is also important from the beginning of the process. In case 1 this became more important later in the process. 'I think we should have started with that, a UX marketing team, to start looking at the customer journey. Now this happened too late'.

Other aspects that make companies decide not to join a consortium are: a different strategic focus, a different target group, the amount of partners already joining. This does not mean they will never join, they can become client when the product is live.

VALIDATION HYPOTHESIS 1

Internal preparation: Internal preparation that includes aspects such as an ecosystem mindset is required before ecosystem adoption

Management commitment

An organisation also needs to prepare and commit internally to effectively join or orchestrate an ecosystem.

This is clearly illustrated in case 2: the CEO of the bank is clearly recognizing the importance of DLT for the company. By having the management commitment, the needed change in mindset will be created internally. 'At Bank X, our highest man committed to its importance by putting it in the strategy, by priming the employees and thereby creating this cultural change.'

However, not all companies have management that is so focused on disruptive innovation. In Case 1 the management is more hesitant and sensitive for outside influence: 'When negative news about DLT arrives, it can stop the process completely. Even Though the product is ready and the added value is clear it won't start, because the management is ignorant'.

In these cases it can help to show its value to the outside world, that way you create an 'outside- in' force that will make the management enthusiastic and committed.
'If the board sees the value of the product from the outside-in, through presenting it to the outside world, people come to the board. This creates a force from the outside-in and a fear that the product will fail'.

This strategy was used in case 1: by presenting the use case to the outside world, the project team gained attention and thereby commitment from the its management team.

Awareness and understanding of DLT

Organisations do not understand or are not aware of the possibilities of the technology. This makes companies hesitant when it comes to spending a lot of money on it.

Over the years financial institutions have gained interest in DLT. This came either from a certain level of fear that it would take over certain offerings, or it was a more personal interest in the technology. DLT teams were created that focus on understanding it. From there, the focus shifted towards finding more practical use cases. Because of this long 'understanding' phase, it is now easier to find use cases and to test the concepts. So, in order to create a valuable solution with DLT it is necessary to develop this basic level of knowledge first.

However, organisations do not know how to deal with the technology in terms of legal, compliance and risk. This was also true for case 1, where one of the consortium partners explained the internal difficulties of implementing something with DLT: 'For DLT a standardized document needs to be created.'

Conclusion hypothesis 1

Companies need to prepare before they can participate in or orchestrate a DLT consortium. There are three key aspects that need to be considered: 1. Ecosystem mindset, 2. Commitment of management, 3. Awareness and understanding of DLT.

VALIDATION HYPOTHESIS 2

Ecosystem adoption process: Every ecosystem innovation starts with a value area that is formalized in a shared vision and continues following a normal innovation process.

The adoption of a DLT ecosystem can follow several approaches. When looking at the projects that are now live, three approaches can be distilled.

The first important differences between the approaches it type of orchestrator of the DLT ecosystem. It can either be orchestrated by a company which directly benefits from the solution, like a bank in this research. Or it can be orchestrated by a technical company which builds the DLT application.

Route one is orchestrated by a company that directly benefits from the solution. The idea is worked out on paper (with or without the other partners). Then immediately a separate entity, a private company is started. All the partners have invested and are shareholder in this separate entity. Then the solution is build and brought to market. This route is used mostly as it creates this required neutral ground and traction in the process (see separate entity).

Route two is also orchestrated by a company that directly benefits from the solution. However, it starts as a project. Within this project period, the solution is build. Afterwards, when there is a product ready, a separate entity will be created and the product will be brought to market.

Route three is orchestrated by a technology company with industry knowledge and network that develops the IP. All companies that are interested in the solution, invest in the tech company. The tech company will stay owner of the IP after market launch. This approach is used the least, as it is less decentralized and only works if the tech company possess specific industry knowledge and network.

Within all these routes, the moment when the other partners are involved, differs. 'You can either define a problem yourself, and then when you have 10 parties you can start building a pilot. Or the other way around: start building a pilot internally. When you're at a stage in which you need other partners to join later. Two ways to do it. For us: we have done both.'

Start small

When starting a DLT consortium it is important to start with a small use case. Do not try to do too much at once, this will slow down the process and is more difficult to make it concrete. In case 1 they had a very big vision of what they wanted to do with DLT. After some pilots they decided to start smaller. Partners in the consortium admitted they would have never joined if it was for the bigger vision. It is more safe, faster and you have proof. 'You can better put one product on the market that works, than keep all the balls in the air. Make sure you have something that works first'. However this small start, is often not as decentralized as hoped for. "In order for a blockchain to make sense it must be decentralized, but in practice it's rare for enterprises to start there. First, they tend to experiment with more centralized blockchain governance models—they're simply more efficient and easier to execute,"

In the PIVT and Komgo case, it is even questioned whether DLT is necessary for this small part. 'For value transfer, honestly, do you need blockchain for it? Absolutely not.' 'Do you really need blockchain? that is the big question.'.

Decentralized organisation

It is important to structure the consortium in a decentralized way, otherwise it does not fit the DLT solution. But how would this be done? How will the roles be divided? Who will be responsible? In case 2, the bank is ahead of the other banks when it comes to their knowledge and the maturity of their DLT division. Because of this reason, they often orchestrate projects, where they face new kinds of challenges: 'Now we're building a decentralized ecosystem, you need to be careful on which roles you give to whom.'

They solved this by appointing a group instead of one person. That way you involve all the organisations in the decision making but the process is not slowed down because a very large group all need to approve. 'The lesson learned: always appoint a group, not one person. This is unique for DLT consortia.'

Separate entity

Most of the time, in the DLT ecosystem adoption process, separate entities are created. This way, the IP is not owned by one of the partners and every partner keeps the same amount of control. 'You are not going to say hey Shell, go build it. That is not the idea of decentralized. So you constantly need to have this neutral ground, a Switzerland'

Another benefit of creating a separate entity for it is the opportunity for the partners to wait with the internal adoption until the product has proven itself. 'For sure it helps that the innovation is out-side, this means that you don't have to adopt it now. You can see how the product develops over 2 years for example and see how it goes.'

Furthermore it brings speed. A product owner associated to case 3 describes this as follows: 'I don't believe you should put it underneath the services of the bank, that takes too much time. I think it is good to put dedicated focus on it from the beginning.

The problem with these separate entities is most of the time that the consortium people who initially joined, will be part of the board. However, these people might not have the right skills. This is also a bottleneck in the Komgo entity: 'In the board are often people like me, who have a lot of industry knowledge but no knowledge about how to run a company. You need venture experience. Komgo struggles with this now, there are 8 people like me in the board, which results in bad advice to the CEO'.

Conclusion hypothesis 2

DLT consortia follow different approaches. However, all of these approaches start with a 'normal' innovation process in which they experiment fast and cheap and have go/no-go moments. This first part is mostly done within one organisation. Then, a small part is tested in a consortium. Another unique aspect of DLT consortia adoption processes is the fact that it mostly works towards a separate entity.

VALIDATION HYPOTHESIS 3

Collaboration: Disruptive innovation demands a collaboration in which roles and responsibilities are divided based on strengths, the number of partners is limited and where each partners is involved early in the process.

DLT demands & stimulates collaboration

This is also especially true for DLT. In order to make DLT successful you need a group of organisations working together. This is because, decentralization within one organisation is almost never not the most efficient way to solve a problem. A centralized database is in these cases often a better solution.

'DLT is almost per definition together with other parties. A solution where you use a decentralized network to solve something internally is not the best solution'
This makes banks more open: 'The technology requires us to be more open, which means we also open up. This happens over time. Now we could call bank A or bank B to ask what DLT projects they are working on. This was not the case 10 years ago.'

DLT has the ability to bring companies together. 'DLT has an important role in bringing together the companies. This is because of the rational: blockchain is something you do together, so if you want to do something with it, you need to partner.'

Orchestrating vs leading

'One person per company takes the lead. There is also often a steer co 5 people of the different companies who align overall. There is not 1 party leading or facilitating. In some cases, we see a consultant take this role.'

There is a difference between an orchestrator and a leading role when the consortium is set up. Most of the time, the idea comes from one company. Then, they either involve other partners from the beginning, or they first develop a concept internally to test the value. It is very hard not to have one party taking the lead when the concept is not formalized. This is because the business value and technical feasibility is not clear yet so the process needs to be fast and have momentum. So, you don't want to get caught up in the delays that happen due to the start of the collaboration.

However, when the consortium is set up, and the final product is going to be build, it is favourable to distribute the responsibilities among the partners. 'I do think that with a distributed technology you should not have one lead.'

The orchestrator of a consortium needs to decide which leadership style it will use. By preparing and working out every aspect that needs to be discussed on beforehand, you eliminate endless discussion and keep the process moving. However, this will also create tensions and it will make the other parties less involved.

A few aspects motivate companies to orchestrate a consortium. First of all, companies sometimes believe they benefit the most if they are the first. 'If you are the first on the market selling tomatoes, you can sell the most and build a relationship with the customer. That is also true for DLT.'

Secondly, they want to guarantee the quality of the product. that is why they chose to do it themselves.'We like taking the lead, especially within the DLT ecosystem. We are one of the stronger players because we have a big team. We like to build it because then it's built at a standard we require.'

Thirdly, when you are already a big player in a market, it is natural that you take the lead. 'Bank X is very strong on the oil market. If you are a strong player and you want to organize a consortium and you have a good overview of the other parties with which you want to collaborate, you can make it a success.'

Amount of partners
The amount of partners in the consortium creates a key dilemma. 'The less parties you need to make it work, the easier' - PL. You either have many partners, thereby a large market share but a very slow process. 'We also had the Marco Polo project, with 24 banks... this wasn't moving. We went over to 10 banks which made the project run.'

Or you have only a few partners, which accelerates the process but makes industry adoption more difficult. This is why an industry with a few big players, is ideal for consortia.

It is not possible to distill a concrete number of partners for a consortia. This depends greatly on the specific market. For Komgo, a consortium of maximum 6 partners would have been optimal, while Marco Polo accelerated with 10 partners (see quote above). 'Where you need to go as a consortium is the balance between market share and agility'.

Moment of partnering
Within DLT consortia, it is common to create several Proof of Concepts before involving other parties. This way you proof the added value of the concept and you don't waste much time on organizing the collaboration. 'If you do everything yourself you go way faster. When you work with 10 banks – a year goes by and you haven't even defined your MVP.'
That is also the reason that in consortia, the orchestrator takes a leading role until a separate entity is created. 'With Komgo, we took the lead. We had the idea, but we onboarded 2 or 3 players in the first year.'

Type of partners
In the context of DLT, it is not perse necessary to have different types of companies involved. However, it is crucial that the consortium has enough industry knowledge. 'You need industry knowledge. Not banking in general, no, specific industry knowledge'

Besides the orchestrator and the technology roles, are there no other defined roles that always occur in an DLT consortium.

Conclusion hypothesis 3
The hypothesis is especially true for DLT consortia: it is almost per definition an area of business where you must collaborate with others. For this you need to take into account three things: the dilemma of leadership, the dilemma of the amount of partners, and how roles are divided. DLT is about decentralization and the consortium should be too. The orchestrator should think about how the roles will be divided and how the sub-groups will be formed. Ideally, the sub-groups consist out of people from all involved parties.

APPENDIX D

Internal brainstorm

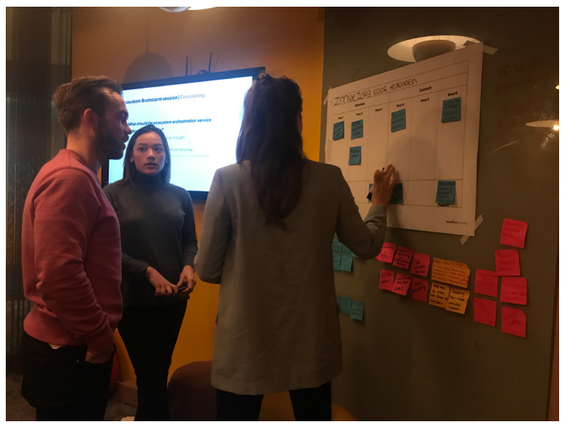
In order to understand what Accenture-specific aspects needed to be considered, a internal brainstorm was conducted. For this session people from different seniority levels and different departments were invited. This is because, the proposition is not meant for one specific operating group or department. By including several seniority levels, conflicting opinions and experiences could arise which support a vivid discussion. Eight people in total (with walk-in and walk-out) were present..

The goal of this session was formulated as follows: Determine the requirements for the Accenture ecosystem proposition. The session took two hours and was divided into several exercises. The design of the session was not focused on cross-sector ecosystems as this decision was not made back then. The session started with a short introduction of the people that were present, followed by a presentation of the research findings (see chapter 6). The ecosystem opportunity was explained which already gave some interesting reactions. First of all it was mentioned that product development is hard for Accenture as it comes down to the 'chicken & egg problem'; it needs a lot of investment on beforehand and Accenture does not want to take that risk. Secondly, the idea to focus on cross-sector initiatives is interesting and 'has enormous value'. Thirdly, one of the biggest hurdles of the concept and adopting it, is the lack of internal communication, knowledge sharing and knowing who to contact for specific information.
Golden rules
The first exercise was called the 'golden rules'. this exercise aimed to determine the five golden rules to make a new proposition within Accenture succeed. The group was split up into two, which resulted in the following golden rules.

GOLDEN RULES GROUP 1
1. Business case: will this initiative benefit the organisation?
2. Leadership buy-in (All groups): MD sponsorship
3. Clear internal communication (physical / digital)
4. Getting the right knowledge and expertise
5. No overlap with other accenture services.(*comment MD*: some overlap might be beneficial)
6. Can't be too internal focused: proof of clients, revenue etc.
7. Scalability

GOLDEN RULES GROUP 2
1. More collaboration
2. Accenture know-how & whom to reach out to (network)
3. Critical mass of partner: funding + credibility
4. Internal business case/ plan
5. X- factor (dreamteam)

These golden rules overlap to a great extent which illustrates the importance of them. An aspect which was highly ranked was the 'accenture know-how & whom to reach out to' which was also mentioned in the introduction of the session. An example given for this was that one of the participants did not even know the group within Accenture, other participants were working in. Furthermore, some obvious but crucial 'rules' were mentioned like a solid business case and leadership buy-in. One tip that was given here, was to find 'sponsors' of the idea: senior people within Accenture, who are willing to speak in favor of your idea and taken action on it.



Identifying ecosystem opportunities
The next exercise was to determine ecosystem opportunities, so either problems which ask for a ecosystem approach or trends which apply to multiple clients. Unfortunately, this part of the session did not result in the desired outcome. The opportunities that were identified were rather obvious and shallow.

Designing the Accenture ecosystem process
the last exercise aimed to design the ecosystem process which Accenture would potentially got through if this proposition would be adopted within Accenture. Again the group was split up and a template was given to speed-up the process. Both of the teams chose another topic to focus on, one on a online patient dossier case and the other team on the leasing industry.

One of the biggest conclusions that could be drawn from this exercise was that people found it difficult to understand the ecosystem concept and how to work outside their own industry or client group. Furthermore, people are not used innovation processes which involves product development with Accenture as the leading role. This requires a mindset change as mentioned earlier in chapter 6.

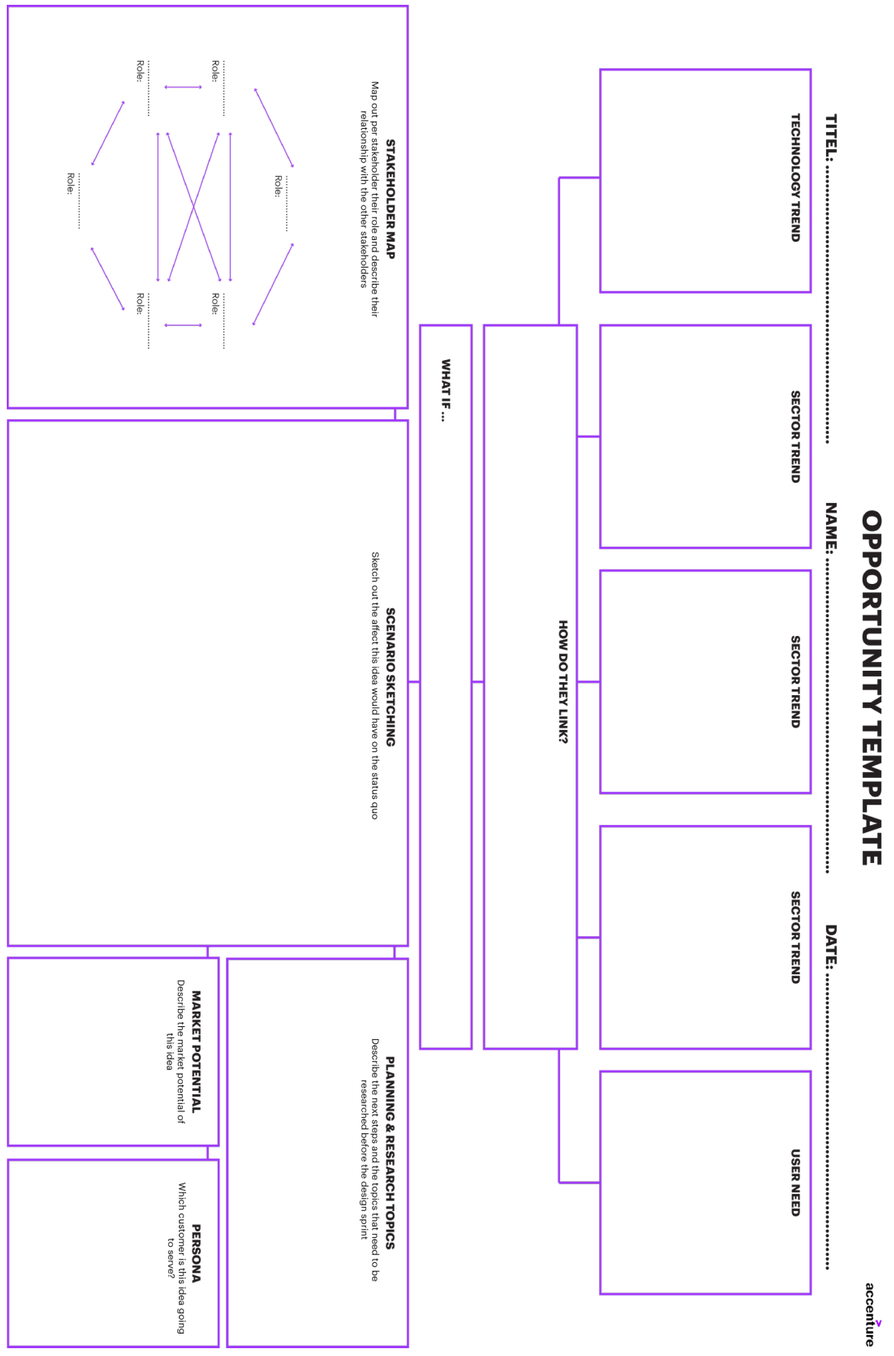
Conclusion internal brainstorm
The first big conclusion that can be drawn from the session was the mindset and organisational change that is needed within Accenture in order to make this proposition work. This means creating an internal platform which enables employees to find the right expertise throughout the whole organisation.

The second insights was the fact that cross-sector ecosystems are seen as very valuable by senior management within Accenture. This confirmed one of the insights from the research (see chapter 6): cross-sector ecosystems are more valuable (money-wise and impact-wise).

Thirdly, the brainstorm highlighted the fact that Accenture people are not use to product development. Therefore, the methods used to go from a trend or opportunity to an actual concept is crucial.

APPENDIX E

Opportunity template



APPENDIX F

Orchestration practises

An orchestrator executes certain orchestration practises. These practises are defined as 'activities through which actors purposefully build and manage the multi-stakeholder innovation network' (Reypens, Lievens & Blazevic, 2019). According to Aarikka-Stenroos, Jaakkola, Harrison & Mäkitalo-Keinonen (2017), there are seven orchestration activities:

First of all, goal setting and refining, which is about setting visionary goals and realistic milestones for the innovation process and the members of the network. The refinement of the goals can take as long as the entire process (Aarikka-Stenroos et al., 2017).

Secondly, resourcing is another important orchestration activity (Aarikka-Stenroos et al., 2017). It refers to the identification of the partners who possess the right knowledge. This activity is also related to providing the right resources to the network members throughout the innovation process.

Thirdly, the activity of motivating the network members is part of the tasks of the orchestrator. This encompasses the identification and providence of financial support and social help for network members, to make sure they can focus on co-creation (Aarikka-Steenroos et al., 2017).
This activity is a necessity throughout the whole process.

Fourthly, consolidating is an orchestration activity that refers to building common ground, trust and commitment from all the network members (Aarikka-Stenroos et al., 2017). In addition, this activity aims to create a constant dialogue between the partners in the ecosystem. This activity is required throughout the entire process, but especially important in the beginning of the process to make sure the right kind of commitment is achieved and established.
Fifthly, coordinating: the division of tasks and its communication which is (Aarikka-Stenroos et al., 2017). This is about monitoring the process of the ecosystem but also about adjusting the goals. These activities all support specific network outcomes.

Sixthly, it's the responsibility of an orchestrator to give orders and make sure that the rules and agreements are followed (Aarikka-Stenroos et al., 2017). Whether this is done very strictly depends on the type of orchestration that is pursued in the network.

The last activity that is done by an orchestrator in the network, is leveraging. This activity entails preparing the network for the fourth coming innovation. This is done by mindset change and creating critical mass for the new innovation (Aarikka-Stenroos et al., 2017).

In order to pursue these activities successfully, there is the need to develop new capabilities (Driessen & Hillebrand, 2013). First of all there is the need for the stakeholder network capability. This capability empowers the orchestrator to recruit the right members for the network. The second capability that is necessary is stakeholder competency mapping (Kazadi, Lievens & Mahr, 2016). The creation of valuable knowledge within networks is strengthened by the orchestrators ability to structurally map the competences of their various stakeholders (Kazadi, Lievens & Mahr, 2016).

APPENDIX G

Orchestration practises

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THE ECOSYSTEM ORCHESTRATION PLAYBOOK

A guide towards successful ecosystem adoption

Imagine... You are the conductor of an orchestra. You are responsible for the collaboration between the different instrument groups, to make sure they play the right notes and tempo. This is a complex task that requires accurate guidance.

This playbook is for the conductor of a business orchestra, in other words: an ecosystem. Orchestrating an ecosystem or consortium can be very difficult as multiple (types of) companies are involved.

According to Dhanaraj and Parkhe (2006), network orchestration refers to '**the capability to purposefully build and manage inter-firm innovation networks**'.

Management of inter-firm innovation networks does not only concern knowledge management or innovation management, it also entails management of interdependency among network members (Rizova, 2006). It is becoming more common that networks are orchestrated by a firm, due to their stake in the outcome. This orchestrating firm selects the right members, shapes their interaction and actively manages the network as a whole (Ritala et al., 2013).

This book will first explain some theory on orchestration activities. Next, it will elaborate on the phases of ecosystem adoption and provide advice on how to orchestration each phase.

A LITTLE BIT OF THEORY

ORCHESTRATION ACTIVITIES
An orchestrator executes certain orchestration practises. These practises are defined as 'activities through which actors purposefully build and manage the multi-stakeholder innovation network' (Reypens, Lievens & Blazevic, 2019). According to Aarikka-Stenroos, Jaakkola, Harrison & Mäkitalo-Keinonen (2017), there are seven orchestration activities:

First of all, **goal setting and refining,** which is about setting visionary goals and realistic milestones for the innovation process and the members of the network. The refinement of the goals can take as long as the entire process (Aarikka-Stenroos et al., 2017).

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Fifthly, **coordinating**: the division of tasks and its communication which is (Aarikka-Stenroos et al., 2017). This is about monitoring the process of the ecosystem but also about adjusting the goals. These activities all support specific network outcomes.

Sixthly, it's the responsibility of an orchestrator to **give orders** and make sure that the rules and agreements are followed (Aarikka-Stenroos et al., 2017). Whether this is done very strictly depends on the type of orchestration that is pursued in the network.

The last activity that is done by an orchestrator in the network, is **leveraging**. This activity entails preparing the network for the fourth coming innovation. This is done by mindset change and creating critical mass for the new innovation (Aarikka-Stenroos et al., 2017).

TYPE OF ORCHESTRATION

In academic literature, two types of orchestration are distinguished: dominating orchestration and consensus-based orchestration.

The **dominating model** is about one key actor who controls the network. This party, recruits the partners of the network and sets the agenda. This model normally relies on traditional contracts (Kazadi, Lievens, & Mahr, 2016). Dominating orchestration is often present when the network is organised around one central firm. These organisations are generally the initiator of the network and take the lead in activities such as partner recruitment (Kazadi et al., 2016), vision setting and goal setting (Aarikka-Stenroos et al., 2017).

The **consensus-based model** is one where the partners together decide on the agenda, the membership and where trust is the main aspect that keeps the relationship together (Gray, 1989; Roloff, 2008). This model is nonhierarchical and involves a lot of negotiation (Crosby & Bryson, 2010). Partners can participate voluntarily, and the orchestrator merely empowers them to deliver value to the network (Huxham & Vangen, 2000). To make sure every member is aligned, workshops are organized in which they align on language definition and to create a common understanding (Huxham & Vangen, 2000).

CRITERIA FOR ORCHESTRATION

The choice for one model or the other depends, first of all, on the aim of the ecosystem, including the type of orchestration. If the ecosystem aims to fulfill a certain vision or a social, environmental or societal purpose, it is crucial to align the partners and to make sure that everyone agrees on that high level. We call this type mission-driven ecosystems. These ecosystems ask for a consensus-based approach that makes sure all partners are aligned and feel heard. Besides mission-driven ecosystems, there also exist efficiency-driven ecosystems. As the word already implies, this type is focused on efficiency and cost reduction. For this type a dominating style can be more useful as the aligning phase in these ecosystems is shorter.

That is because when the aim is to reduce costs or make a process or product more efficient, the ecosystem does not create something completely new and disruptive. For this reason, it is easier to agree upon the aim, goals, and milestones in the ecosystem.

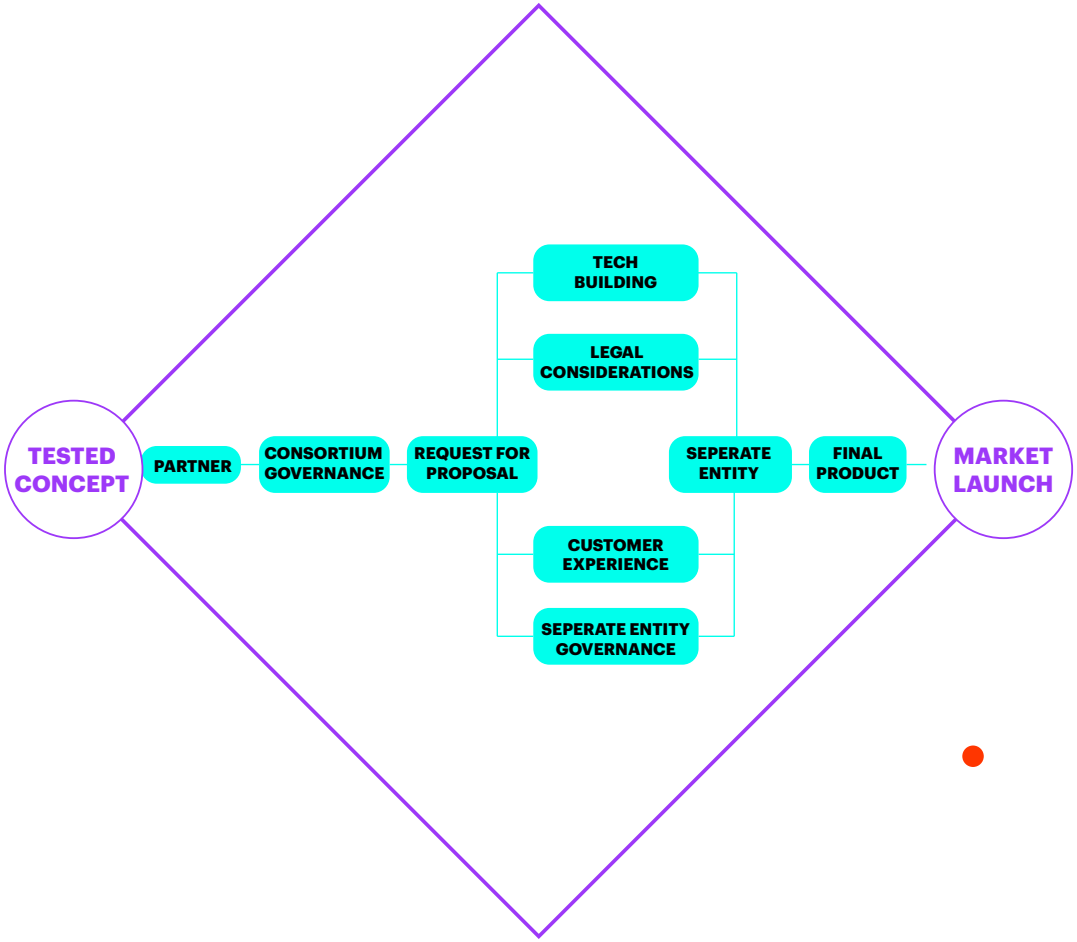
Secondly, the higher the amount of members, the harder it is to manage and observe the network. This aspect is called ‘network opacity’ (Fonti, Maoret, & Whitbred, 2015). When the network opacity is high, trust and negotiations among the members is harder to achieve, which makes the consensus-based model less appropriate (Blazevic, Reypens, & Lievens, 2019). However, when applying the dominating model in large networks, it could undermine the legitimacy of the orchestrator. The orchestrator can never possess all the expertise created in the network, which reduces their legitimacy (Bridoux & Stoelhorst, 2016). This could result in a counterproductive way of orchestration (Davis and Eisenhardt (2011). Thus, the dominating orchestration style is preferred in large ecosystems, but it is crucial to manage the knowledge distribution in the network.

The type of orchestration model could also depend on whether an ecosystem operates within one industry, within one sector or cross-sector. When the ecosystem operates within one industry, it is more effective to use dominating orchestration, because the participating organisations need less time to understand each other. One-industry ecosystems are mainly efficiency focused, which connects to the first criterium. When the ecosystem is cross-sector, it is more effective to use a consensus-based approach as empathy is crucial. The within-sector ecosystems could be a hybrid form between within industry and cross-sector ecosystems.

Lastly, the technology that is being leveraged in the ecosystem is important to take into account. When a technology has the aim to decentralise how processes are organised, such as distributed ledger technology (DLT), it is in the nature of the technology to use a consensus-based orchestration style as this is more democratic and thereby decentralised.

OVERVIEW OF THE PHASES IN AN ECOSYSTEM ADOPTION PROCESS

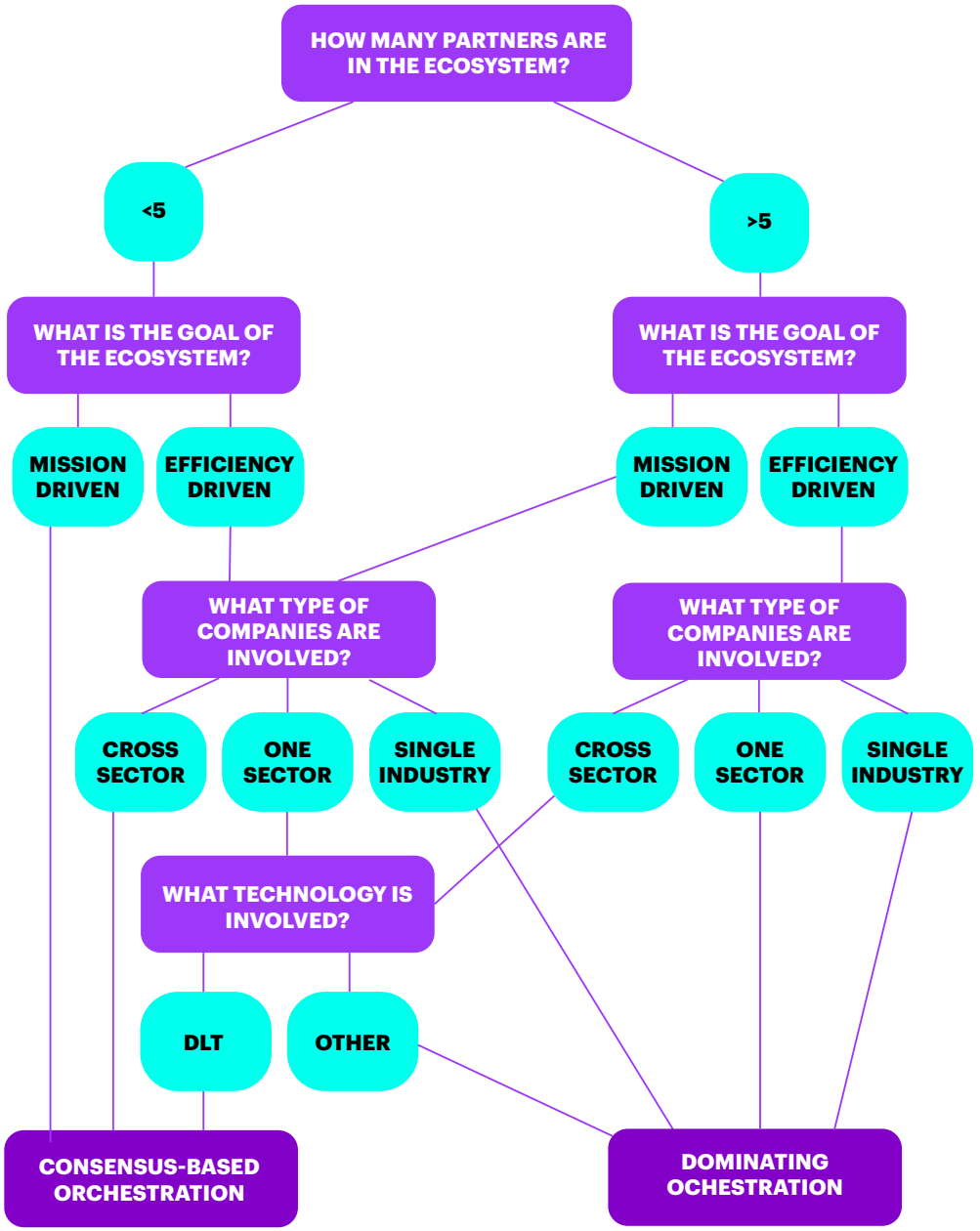
There are several phases within ecosystem adoption. It starts with finding the right partners and ensuring their involvement and commitment to the consortium. When all the partners are involved, the consortium governance must be discussed. This phase contains several meetings where decisions are made on the management of the consortium. The third phase in the process is the “request for proposal (RFP)” phase, which entails sending a request for proposal to several technical companies that are capable of building the technology needed for the solution. When the RFP is successful, four groups will work simultaneously: ‘technology building’, ‘legal considerations’, ‘customer experience’, and ‘separate entity governance’. After these groups are finished, the separate entity will be created in which the final product will be launched to market.



DECISION TREE FOR 'GENERAL' ORCHESTRATION TYPE

In order to provide proper guidance for the orchestration of ecosystems, first a general type of orchestration has to be determined. This is either consensus-based or dominating orchestration. As not all of these steps in the phases ask for specific guidelines, this general type will help during these steps.

DECISION TREE TO DETERMINE ORCHESTRATING TYPE



PARTNER PHASE

GOAL: Bring the right partners together and make them commit to the ecosystem.

This first phase is about bringing the right partners together and to get their formal approval of participation in the ecosystem. If the partners are already involved since phase 2, this step only entails planning the kick-off of the consortium phase. If the partners, needed for the ecosystem, were not involved during the design sprint and PoC, this phase is more complicated. It will ask for a detailed plan on how to approach the new partners (sales plan) which should be created in collaboration with the client account leads across the departments of Accenture.

The potential partners must be convinced of the project and willing to financially commit. If new partners enter, this phase will also take more time. That is because Accenture needs to manage both the new partners and the partners that are already involved, which asks for more resources and preparation.

GUIDELINES FOR EXISTING PARTNERS:

- Keep them up-to-date on the partnering process and the selection of partners
- Maybe even involve them in the sales process, depending on whether it is beneficial. This depends on the partner and whether they give Accenture room to lead in the sales process.
- Send them at least a weekly update
- Try to spot potential partners that do not fit the profile

GUIDELINES FOR NEW PARTNERS

- Convince them of the concept and the added value for their business
- Explain the ecosystem concept and what is expected of them
- Introduce them to the existing partners

PARTNER PHASE PROCESS:

1. Determine the profiles needed for the consortium
2. Perform a market analysis to distill potential partners
3. Formulate a sales plan in collaboration with the client account lead
   A. How are you going to approach them?
   B. What is the current relationship with them?
   C. What are their needs and desires?
   D. How would you build up your sales pitch?
   E. What elements would you stress during the pitch?
4. Reach out to the partner
5. Pitch the concept
6. Conduct sales negotiations
7. Sign agreement
8. Introduce the new partners to the existing ones

BOTTLENECKS

- Existing partners do not agree with the new selection of partners and exit the agreement
- New partners do not feel committed and thereby cause a misalignment in the ecosystem which might result in delays or conflicts

ORCHESTRATION TYPE

If the ecosystem is complete, a dominating orchestration type is preferred as it will speed up the process. When new partners need to enter the consortium, it is crucial to stick to a consensus-based type as a lot of expectations need to be managed and the different levels of involvement need to be overcome.

CONSORTIUM GOVERNANCE

GOAL: To set the standards for the ecosystem and to get all partners aligned

This phase of the ecosystem adoption process has some steps of its own. Which will be explained next.

KICK-OFF MEETING
Firstly, an official kick-off meeting in which the vision, planning, cost & investment management, roles & responsibilities and workflow are discussed. This kick-off will be a session of two hours and needs to take place at a neutral location. In this meeting it is crucial to get everyone aligned and motivated. That could be achieved by making the partners owner of certain agenda points or by applying a meeting approach that is more interactive or which will spark discussion. It is very important to facilitate this meeting well, so that all the partners feel heard and are involved in the discussion of each agenda point. As this meeting can be very energy-consuming, it is good to take multiple breaks.

Another way to make all the partners motivated is by applying a more playful way to come to agreements, for this design thinking methods can be used.

Orchestration: Consensus-based type of orchestration

MEMBERSHIP & REGULATION MEETING
During this second meeting some other important membership agreements should be made, these include: member enrolment, membership revocation policy, discontinuing membership and breach management. Furthermore, this meeting will discuss the following regulation related topics: data governance, risk management, regulation compliance and Audit verification. The orchestrator should prepare the partners for this meeting by sending a document which proposes a certain stance on these topics. That way, partners can form an opinion on beforehand which will smoothen the process.

Orchestration: 'the general type'

FINANCE MEETING
The last meeting in this phase will focus on the financial elements of a consortium, these include: financial incentives, operating incentives, regulatory incentives, the revenue model (if not already discussed during the ecosystem design sprint) and fines and penalties.

Orchestration: 'the general type'

GUIDELINES FOR THIS PHASE:
- Often this is the phase in which the partners disagree. Tensions might emerge, why it is crucial to manage commitment and agreement of the partners well. This can be done by strictly involving them.
- It is wise to involve a regulator during the second meeting as well

BOTTLENECKS
- As mentioned before, a bottleneck in this phase could be that the partners cannot come to an agreement. It helps to prepare a document that suggests certain choices based on evidence.
- The second bottleneck in this phase is the amount of time it will possibly take to finish.

REQUEST FOR PROPOSAL

GOAL: Determine who is going to build the technical implementation of the concept

During this phase of the ecosystem adoption process, the request for proposal is written for the technical implementation of the concept. This involves a meeting in which the partners determine the requirements for the technical implementation and write the actual RFP. Then the RFP parties will work on the RFP for four weeks and based on the outcome and the (dis) advantages of the used protocol a party is chosen that will build the technical implementation of the concept.

TECH REQUIREMENTS MEETING
During this meeting the ecosystem partners will determine the requirements for the technical implementation of the concept. This needs to be discussed in detail, to make sure every partner is aligned. This is crucial because during the RFP- weeks, the ecosystem partners should form a collective instead of several companies with all a different opinion.

Orchestration: 'general type'

RFP-WEEKS
As mentioned above, these weeks involve building prototypes of the technical implementation by potential parties. At the end of these weeks a party is chosen to do the technical implementation. Within these weeks it is very important that the ecosystem partners collaborate closely and recognise each other as one initiative? This will benefit the decision-making process at the end of these weeks. A more consensus-based orchestration type is more suited in this phase.

Orchestration: Consensus-based type

BOTTLENECKS
A bottleneck in this phase could be that partners prefer different protocols as they might have invested in these technologies already. This might cause conflict during the RFP.

WORKING GROUPS PHASE

GOAL: Determine who is going to build the technical implementation of the concept

In this phase of the ecosystem adoption process, four workgroups are created to speed up the process. In each of these four workgroups, all ecosystem partners are represented to increase the commitment and involvement. The four workgroups are: technology building, legal considerations, customer experience and separate entity governance. In all these workgroups, the orchestration type is the 'general type', unless specified otherwise below.

TECHNOLOGY BUILDING
In this workgroup, the technical implementation of the concept is created. This will be done mostly by the party that won the RFP. However, all the other partners of the ecosystem, should come together occasionally to check up on the progress and to make technical decisions.

LEGAL CONSIDERATIONS
This working group, elaborates on the legal considerations for all of the separate companies involved in the ecosystem.

CUSTOMER EXPERIENCE
As the relationship with the customer might differ per ecosystem partner, it is very important to design a new way to approach, maintain and sell to your customer. Furthermore, the overall user experience (UX) and User interface (UI) of the solution needs represent the quality that is desired by all the partners in the ecosystem.

SEPARATE ENTITY GOVERNANCE
This working group focuses on enabling the creation of a separate entity for when the product/service is ready. A lot of new governance agreements have to be made that all partners have to agree with. It is important to stick to a consensus-based orchestration type, as commitment and agreement are crucial for the success of the separate entity creation.

BOTTLENECKS:

- People from the involved companies do not feel involved in the other workgroups as they are personally involved in a different group. This problem could be overcome by forcing the groups to regularly update the other groups on their progress.
- Another bottleneck that could arise is that other people might develop an opinion about an aspect that is discussed in a group where he is personally not involved in. This could be overcome by letting them talk to another person from the same company who is involved in the workgroup.

SEPERATE COMPANY FINAL PRODUCT & MARKET LAUNCH

GOAL: Guide a stable transition into the new separate company to finish the product and assist the launch to market

In this phase it is crucial that the ecosystem is guided properly. It will undergo a critical transition from several companies that work together towards one separate company. This does not only ask for a different mindset, it will also mark an important phase in the ecosystem.

SHAREHOLDER MANAGEMENT
During this phase the partners must decide who is going to govern the new entity and who is going to be positioned in the board. Most of the time this will be the people who were already intensively involved in the other ecosystem phases.

For an orchestrator it is important to understand the tensions that will arise from deciding this organisational structure. Here it is crucial that the orchestrator tries to understand everyone's desires and manages tensions between partners.

Furthermore, it is important to think about the fact whether the orchestrator will be a shareholder as well. This will complicate the process into the separate company as the 'mediator' role will be done by someone who has a stake in the outcome.

BOTTLENECKS:
- Besides the bottleneck discussed above, it is also important to think about the physical location of the separate company, it is preferred to be a neutral location between the shareholder companies.

FINAL PRODUCT
When the separate company is established and active, the product will be finished internally. From this moment on, the orchestrator will have a less dominant role as a board has been established in the new company.

MARKET LAUNCH
The way to launch the product to market really depends on the product itself. It can be wise to do it step by step, by for example first adopting it with one shareholder company and then extending it. On the other hand, it could also be beneficial to launch the product immediately with all shareholders to gain attention and to show the benefit of the product.

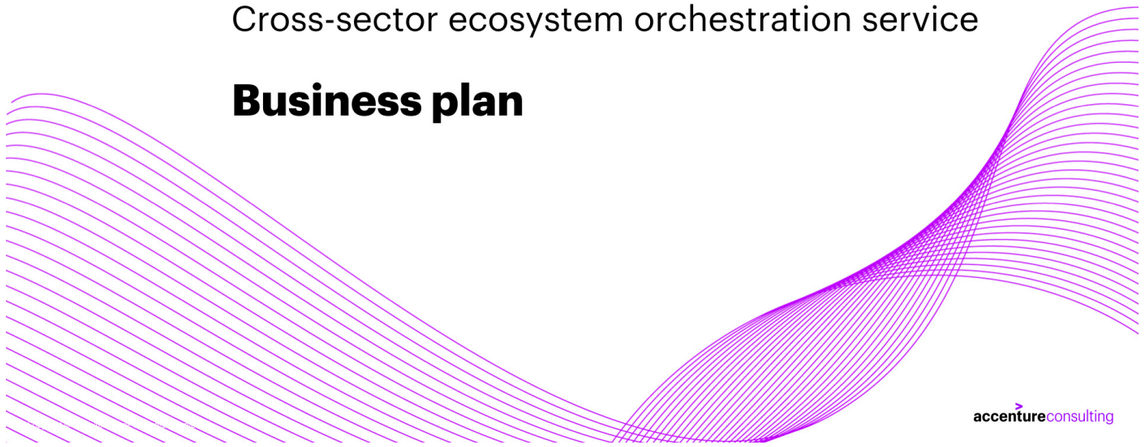
APPENDIX H

Business plan

MAESTRA

Cross-sector ecosystem orchestration service

Business plan



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BUSINESS PLAN | Table of content

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EXECUTIVE SUMMARY

CONTEXT

- Ecosystem innovation is very promising: 30% of the gross world product in 2025 will be generated by ecosystems.
- Cross-sector ecosystems are promising as it opens up possibilities for disruptive innovation.

PROPOSITION

- This document is a business proposal for the board of Accenture NL and contains a detailed approach on how to tackle cross-sector ecosystem orchestration to create a lasting impact for our clients, society and the environment.

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GLOSSARY

ECOSYSTEMS	A network of different types of companies, with different relations, that combine individual resources and offerings to create a new valuable solution for the customer, operating from a platform
CROSS-SECTOR	Cross-sector refers to solutions that involve multiple sectors. Sectors in this document are defined as a subset of the global economy focusing on a specific area of business. (examples: food sector, financial services sector, energy sector)
SINGLE-INDUSTRY	Single-industry refers to solutions that involve players from one industry. Industries in this document are defined as subsets of sectors (examples in financial services sector: insurance, banking)
OPEN BANKING	Open banking is a financial services term as part of financial technology that refers to: The use of open APIs that enable third-party developers to build applications and services around the financial institution.
INTERNET OF THINGS	The interconnection via the Internet of computing devices embedded in everyday objects, enabling them to send and receive data.
ORCHESTRATION	The capability to purposefully build and manage inter-firm innovation networks
VALUE AREA	The intersection of a trend, technology and customer need

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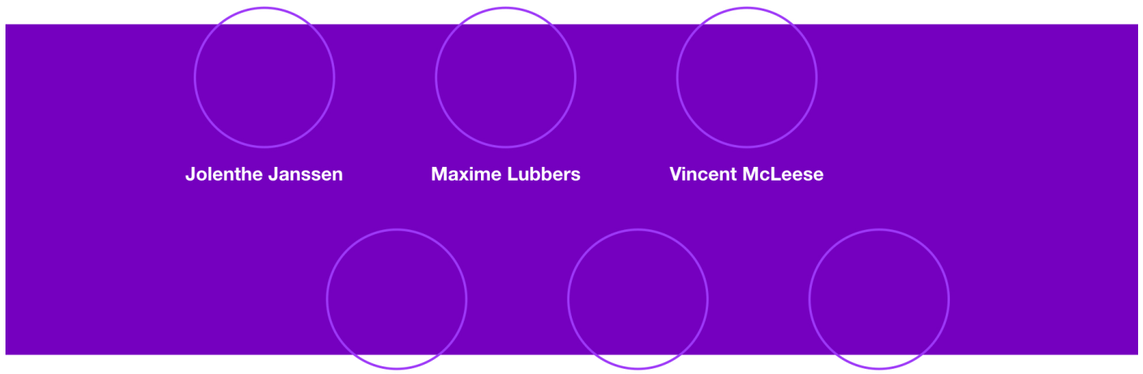
INTRODUCTION

INTRODUCTION | Contributors



INTRODUCTION

ECOSYSTEM DRIVEN ECONOMY

"TO INNOVATE, YOU NEED TO COLLABORATE. TO MAKE IMPACT, YOU NEED MULTIPLE SECTORS. TO DO BOTH, YOU NEED ACCENTURE"

- JOLENTHE JANSSEN

INTRODUCTION | Company Description

WE PROVIDE END-TO-END SERVICES FOR CLIENTS ACROSS OUR FIVE BUSINESSES

Accenture is a consultancy firm with offices in 56 countries. Accenture is operating in 40 industries across 13 industry groups.

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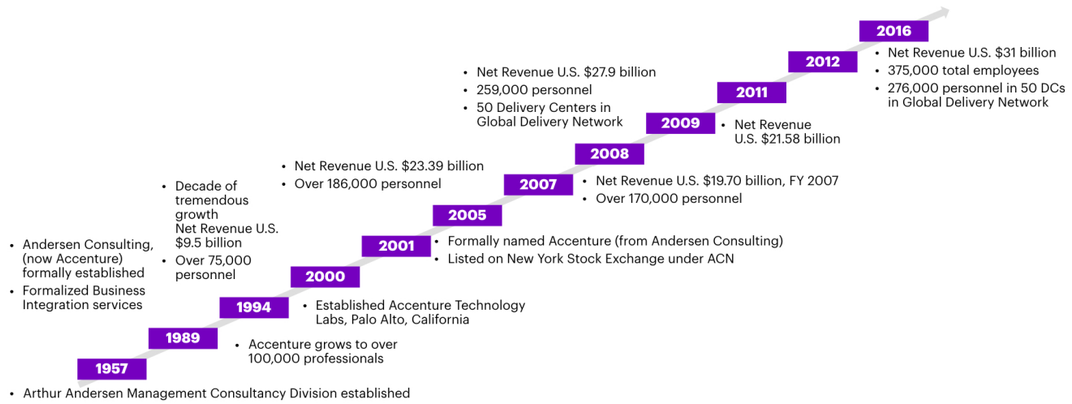
SHAPES	**TRANSFORMS**	**DIGITIZES**	**POWERS**	**OPERATES**
Business Strategy	Management Consulting	Interactive	Application Services	As a Service
Technology Strategy	Technology Consulting	Industry X.0	Labs	Business Process
		Applied Intelligence	Ecosystem Alliances	Cloud
				Security

INTRODUCTION | Historical facts



INTRODUCTION | Performance Accenture global

WE DELIVERED ANOTHER YEAR OF OUTSTANDING FINANCIAL RESULTS IN FISCAL 2019, DRIVING SUPERIOR SHAREHOLDER VALUE.

$43.2B

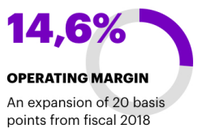
REVENUES
An increase of 8.5% in local currency and 5% in US dollars from fiscal 2018

$45.5B

NEW BOOKINGS
Broad-based and strong across the business, with approximately 65% in digital, cloud and security services.

$7.36B

DILUTED EARNINGS PER SHARE
A 9% increase from fiscal 2018, after excluding $0.40 in charges related to tax law changes



OPERATING MARGIN
An expansion of 20 basis points from fiscal 2018

$6.0B

FREE CASH FLOW
Defined as operating cash flow of $6.6 billion net of property and equipment additions of $599 million

$4.6B

CASH RETURNED TO SHAREHOLDERS
Defined as cash dividends of $1.9 billion plus share repurchases of $2.7 billion

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INTRODUCTION | Accenture innovation architecture

WE LEAD WITH INNOVATION IN EVERYTHING WE DO

ACCENTURE RESEARCH	ACCENTURE VENTURES	ACCENTURE LABS	ACCENTURE STUDIOS	ACCENTURE INNOVATION CENTERS	ACCENTURE DELIVERY CENTERS
Trends	**Investment & Open Innovation**	**Research & Development**	**Solution Innovation**	**Use Cases & Assets**	**Scale**
Ideate **through thought leadership**	Shape **emerging technologies**	Prototype **through applied R&D projects**	Build **with speed and agility**	Demonstrate **and reuse innovations**	Scale **innovations across the business**

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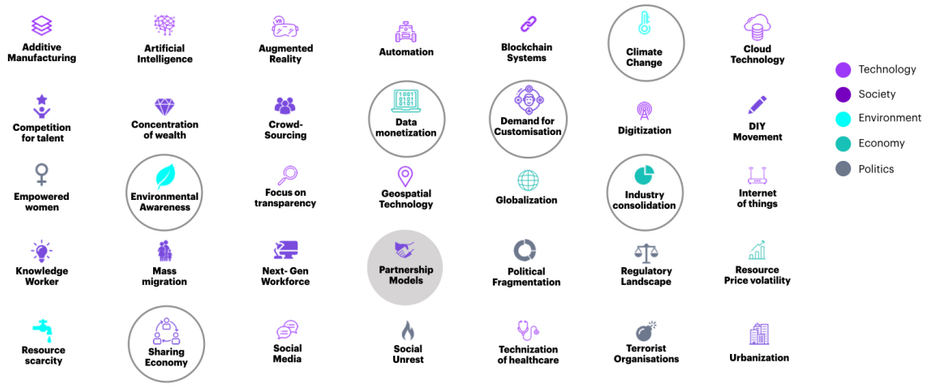
MARKET ANALYSIS

MARKET ANALYSIS | Client markets: general trends

There are several mega trends that impact our clients but also the way we do business. These trends are categorised in five larger themes: environmental, economical, technical, societal and political. This proposal taps into multiple trends listed below (see circles), however the most important one is the change in **partnership models**.



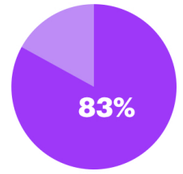
Deloitte Consulting GmbH. (2017). Beyond the Noise | The Megatrends of Tomorrow's World. Retrieved from https://www2.deloitte.com/content/dam/Deloitte/at/Documents/public-sector/deloitte-at-ps-megatrends-2ndedition.pdf

MARKET ANALYSIS | Ecosystem: Cross-sector

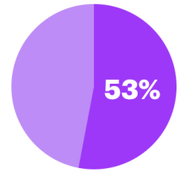
Ecosystems are booming. As companies are forced to innovate on a more radical scale, cross-sector ecosystems start to emerge. Cross-sector ecosystems enable the creation of totally new services by combining capabilities from different sectors.

If an ecosystem appears within one industry, most of the time this will be focused on process optimisation or incremental innovation.

Besides the potential to enable disruptive innovation, Cross-sector ecosystems also enable the creation of social and environmental impact.



Of digital ecosystems have partners involved from 3 sectors



Of digital ecosystems have partners involved from >5 sectors

MARKET ANALYSIS | Highlighted trend: Ecosystems

As visualised in the trends on the previous slide, the speed of innovation is increasing, customers are asking for more transparency and better services, technology is forcing companies to reinvent themselves. Companies cannot deal with these challenges alone: they have to collaborate. This is either because they do not possess the right knowledge or they will not be able to bring along change without a large market adoption.

To come back to the most important trend 'partnership models', Ecosystems are **networks of different types of companies that combine individual resources and offerings to create a new valuable solution for the customer.** These networks make the boundaries of sectors blur. Companies are starting to offer services that used to be outside their own industry context. This not only benefits the customer with an improved customer experience but it could also create new revenue streams for businesses.

Ecosystems will account for 30% of the gross world product by 2025

https://www.mckinsey.com/industries/financial-services/our-insights/insurance-beyond-digital-the-rise-of-ecosystems-and-platforms

MARKET ANALYSIS | Ecosystem: Cross-sector potential

The term cross-sector ecosystems is still very broad. This is because it does not have a defined sector boundary. Furthermore, possibilities are enormous. Themes which open up possibilities for cross-sector ecosystems are open banking, smart cities or 'internet of things'. Each of these themes have an enormous growth forecast.

Open banking

2018
- 8.1 M consumers
- 2.4 M small businesses
- $2,97 Billion revenue

2022
- $9,29 Billion revenue

32% increase

https://www.credit-connect.co.uk/consumer-news/open-banking-market-could-be-worth-7-2bn-by-2022/

Smart city

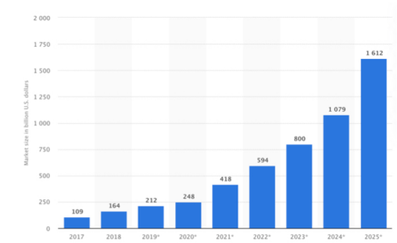
2019
- $97.4 billion

2028
- $263 billion
- $1.7 trillion cumulative revenue

37% increase

https://www.smartcitiesworld.net/news/news/navigant-tracks-smart-city-projects-around-the-world-4296

Internet of things



https://www.statista.com/statistics/976313/global-iot-market-size/

MARKET ANALYSIS | Conclusion

Cross-sector ecosystems have a high market potential

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INTROSPECTIVE

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MARKET ANALYSIS | Cross-sector ecosystem barriers

Even-though ecosystems are seen as a big part of how businesses operate in the future, there are some barriers that companies are facing when adopting an ecosystem. These aspects were concluded from an Accenture study focusing on the adoption process of ecosystems with a focus on Distributed Ledger Technology ecosystems

1. **Ecosystem collaboration is difficult:** lack of trust / commitment
2. **Processes go very slow:** many opinions, lack technical expertise
3. **Lack of neutral party:** expectation management, facilitation
4. **Orchestration is complex:** conflict current portfolio, risky, organisation is not ready
5. **Cross-sector ideation:** no direct focus as network is missing

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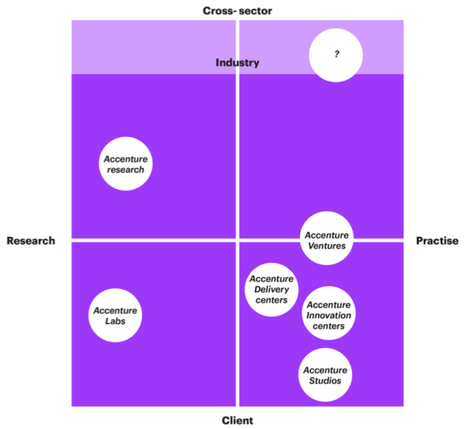
INTROSPECTIVE | What is Accenture already doing?

ACCENTURE IS CURRENTLY OFFERING ECOSYSTEM SUPPORT IN SEVERAL DEPARTMENTS

INTROSPECTIVE | Innovation architecture



Accenture is a frontrunner for innovation. The innovation architecture shows the different aspects of innovation that are tackled. These six divisions are mostly focused on practical client innovation.

This matrix provides an overview of where each of the divisions is focusing on. Accenture research does focus on providing industry insights. However, as can be seen, none of the elements focuses on cross-sector innovation which can be applied in practise.

SERVICE DESCRIPTION

INTROSPECTIVE | What is missing?

IN ORDER TO TAP INTO THE POTENTIAL OF CROSS-SECTOR ECOSYSTEMS SOME ASPECTS ARE MISSING

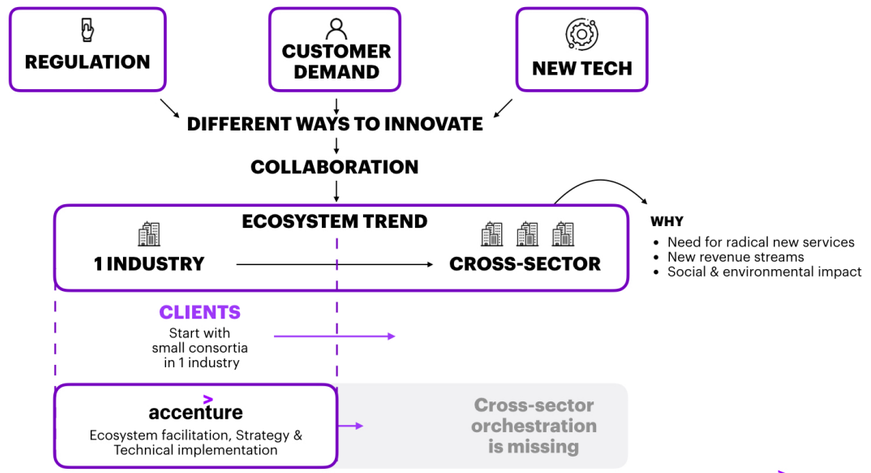
Service for Cross-sector ecosystem consulting

Accenture is structured in a way that does not allow for cross-sector consulting. This complicates positioning oneself in this new era.

Service for cross-sector innovation (ideation)

As Accenture aims to be a frontrunner in innovation, cross-sector ideation, conceptualisation and prototyping should be part of the innovation architecture.

SERVICE DESCRIPTION | Problem summary



SERVICE DESCRIPTION | Maestra

Maestra: Cross-sector ecosystem orchestration service

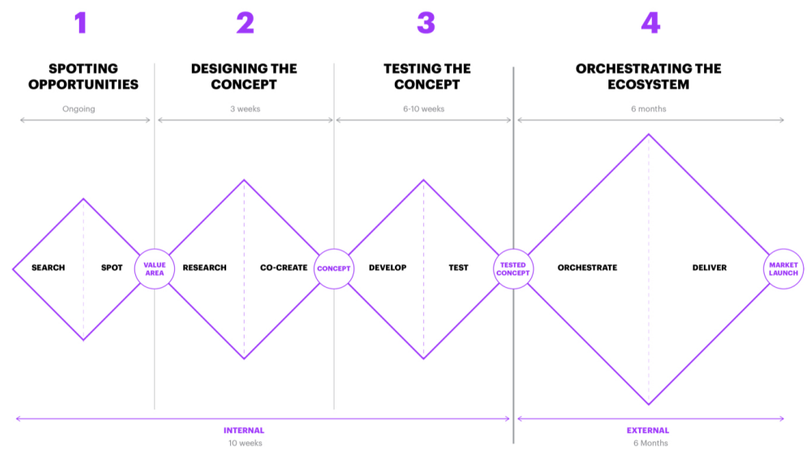
Spotting - Ideating - Orchestrating

For our clients who are looking for radical ways to reinvent themselves,
Accenture offers **cross-sector concepts** by combining its sector knowledge, technical expertise and design skills.

These concepts are further developed together with multiple clients in an **ecosystem**
where Accenture **orchestrates & facilitates** the ecosystem process towards market launch

Maestra creates **cross-sector collaboration** to stimulate **societal and environment impact**

SERVICE DESCRIPTION | Approach



SERVICE DESCRIPTION | Advantages

For clients

1. Opportunity to offer **new kind of services** to achieve competitive advantage and create **new revenue streams**
2. **Less risk** as Accenture takes the lead in the concept development
3. Accenture creates the **neutral ground** needed for adoption, expectation management and facilitation
4. Via Accenture's **cross-sector network**, clients can reach other sectors to partner with

For Accenture

1. Competitive advantage in upcoming **ecosystem driven economy**
2. Make Accenture the **go-to consultant** for cross-sector ecosystems
3. Possibility to **create social impact** and radical innovation
4. Increase in the **dependency** on Accenture's service
5. Makes use of Accenture's global **network of expertise, design skills** & ability to **deliver fast**

Service description | Phase 1 Spotting opportunities

Description

The first phase of the service is focused on abstracting value areas for which a cross-sector ecosystem concept can be developed. This is done by creating an internal platform which gives an overview of what is happening around us in all the industries.

Employees provide information on the specific project they are working on and their role & expertise. This has the benefit for them to find the right kind of people very easily. Furthermore by creating this overview, opportunities or value areas can be discovered for cross-sector ecosystem ideation.

A cross-sector ecosystem opportunity should contain the following aspects.

- Three or more industries involved
- Fulfil a customer need or desire
- A clear target market

Goal:

Create an **overview** of all Accenture projects so that employees can find the right **expertise** and this service will be able to distill **value areas** for phase 2.

Requirements:

- Provide an overview of Accenture projects & staffing
- Provide a search engine to find skill, expertise or roles
- Integrate smart algorithm for spotting opportunities

Continuous

Service description | Phase 2 Designing the concept

Description

The second phase of the service is about translating the opportunities into concepts. First extensive research needs to be conducted into the opportunity and it's context. This research should cover, potential market value, the industries that are involved and the customer group. Afterwards a co-creation ecosystem design sprint will be organised which will contain the following elements: analysing the value area, scenario sketching, forming a shared vision, customer journey mapping, determining the business case, prototyping and testing.

During this design sprint, potential ecosystem partners will be involved. Furthermore, the session will be facilitated by a professional facilitator.

The deliverables of the design sprint will be: a value proposition, clear customer segment, business model canvas, ecosystem plan & a tested MVP.

Goal:
Translate value areas via co-creation into **concrete concepts**

Requirements:
- Involve potential ecosystem partners from all industries
- Deliver a concrete plan for execution

2 weeks research + 1 week design sprint

Service description | Phase 3 Testing the concept

Description

In the third phase of the service, Accenture will further develop the concept into technical requirements and test it via a proof of concept. This is all done internally by tech experts from Accenture Technology.

The aim of this phase is to quickly test if the concept is feasible and viable. During this proof of concept it is important to simulate as much as possible as if it was implemented in real life.

Furthermore, the potential ecosystem partners which were involved in the design sprint, and are still enthusiastic, should be updated regularly as well.

Goal:
Further develop and test the concept by a Proof of Concept

Requirements:
- Consult with potential ecosystem partners
- Simulate real life in Proof of Concept
- Involve regulators

6- 10 weeks

Service description | Phase 4 Orchestrating the ecosystem

Description

The fourth phase of the service is about recruiting the right partners for the ecosystem. In this phase the client account leads should be involved to reach out to potential ecosystem partners.

The aim of this phase is to sell the idea to the potential ecosystem partners. Furthermore, the goal is to make clients commit to participating in the ecosystem adoption process.

Besides the sales process, this phase also includes the total orchestration practise of ecosystems, including:
1. Motivating the partners
2. Consolidation: building trust and a common ground
3. Governing
4. Coordinating (division of tasks, process monitoring)
5. Leveraging, preparing for the next phase in the ecosystem
6. Goal setting & refining

Goal:
Sell the concept to the right ecosystem partners and Orchestrate the ecosystem and bring to concept to market

Requirements:
- Involve client account leads
- Determine revenue model for specific ecosystem concept
- Involve regulators
- Develop a concrete ecosystem plan on before hand
- Determine separate entity requirements and governance

6 months

SERVICE DESCRIPTION | Vision

Enabling disruptive innovation for social and environmental impact

SERVICE DESCRIPTION | Vision

The aim of this service is to contribute to the sustainable development goals identified by the United Nations as it gives more guidance to the ideation phase and because the service will thereby fit into an acknowledged impact framework

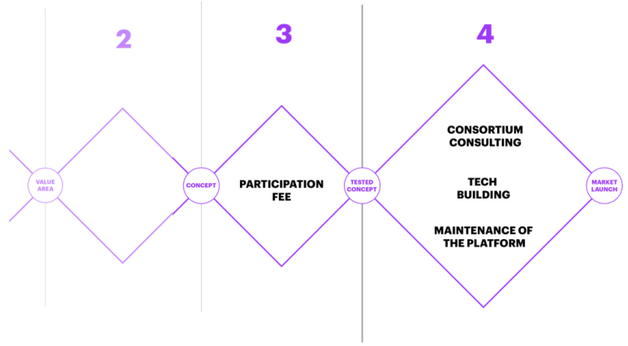
SERVICE DESCRIPTION | Business model

This service can have several revenue models. Phase one is an ongoing and 'passive' phase which does not cost much time of consultants. Phase two is a relatively short phase consisting out of research and a co-creation design sprint. The expenses of the first two phases will be covered through the revenue generated in phase three and four.

Revenue generated in phase three will come from the participation fee that industry partners will pay for the initial proof of concept that will be developed by Accenture. In phase four Accenture will be payed via a normal consortium consulting fee and technical building hours.

When the product, platform or service is finished, Accenture can take care of the maintenance of the technical platform or infrastructure which will also generate revenue

The exact revenue model that is being used depends highly on the type of ecosystem and the type of sectors that are involved.



SERVICE DESCRIPTION | Competition analysis

When analysing the competition on cross-sector ecosystem orchestration, the following aspects become clear:

Capgemini
Deloitte.
BCG
McKinsey &Company
KPMG
pwc

Acknowledge the ecosystem trend
Especially in trend reports published by these firms is a growing attention for ecosystems

Structured by sectors
All of these companies are structured by the sectors they consult in. There are services offered that are cross-sector but these are still offered to one client at the time

Participate in smaller consortia
Most of the competition is active in consortia, either consulting or participating. KPMG for example offers a wide range of DLT focused consortia support services.

No clear positioning or service offering
Especially when it comes to cross-sector ecosystem orchestration, none of the parties offer a clear service on their website.

No orchestration or ideation service
As consultants are not product companies, none of these companies are focusing on concept development for ecosystem

Service description | Summary service

<table>
<tr><td>Key partners

Industry champions</td><td>Key activities

Spotting value areas
Constant trend research
Orchestrating ecosystems

Key resources

Internal platform</td><td>Value proposition

Cross-sector ecosystem conceptualisation & orchestration</td><td>Customer relationships

Client account leads

Channels

Face-to-face
Communication platform</td><td>Customer segments

Companies that want to reinvent themselves

Companies that lack ecosystem expertise

Companies that lack technical expertise

Companies that want additional revenue streams</td></tr>
<tr><td colspan="2">Cost structure

Consulting hours
Ideation hours
Office rent
Supplies
Insurance</td><td colspan="3">Revenue streams

% of participation fee
Consulting fee
Maintenance of the platform</td></tr>
</table>

Service description | Challenges

1

Motivate employees to use internal platform

As the internal platform is the first step in the process of the service, it is crucial to motivate employees to use the internal platform. Without the information on that platform, it is impossible to spot the right industry trends

2

Make clients shift from industry-thinking to cross-sector thinking

Clients are not used to working together with other sectors. The mindset shift that is required is far from their current way of working. This could create a potential challenge for the team

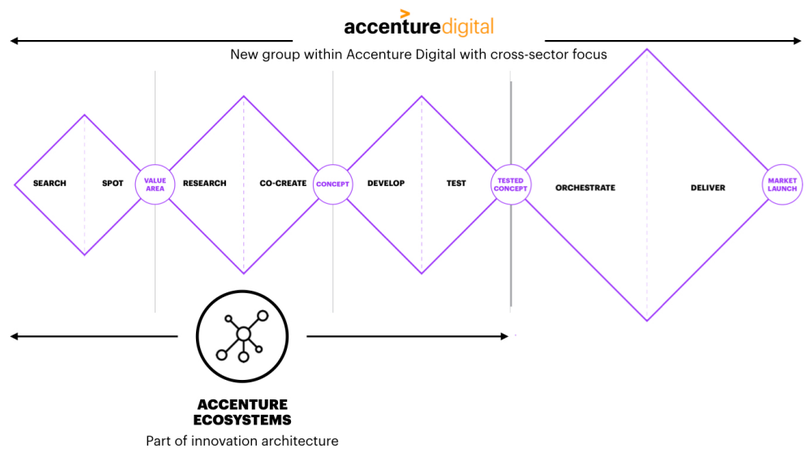
3

Prove business value of concepts

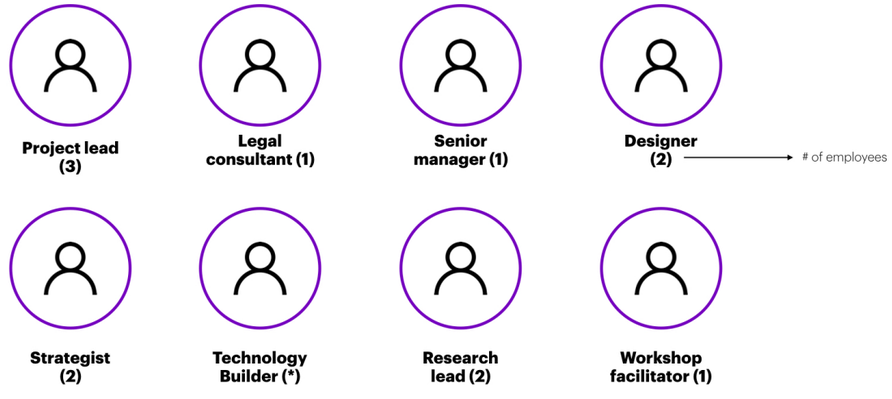
One of the most important elements that makes partners commit to the ecosystem is the business value it will bring to their own company. However, this is hard to proof early in the process. This could potentially create a problem.

ORGANISATIONAL PLAN

ORGANISATIONAL PLAN| Structure



ORGANISATIONAL PLAN | Team composition (H1)



*flexible amount of people depending on the amount and type of projects.

ORGANISATIONAL PLAN | Team composition (Horizon 1)

ROLE	Responsibilities	FTE	LEVEL
Project lead	- PROJECT MANAGEMENT - ECOSYSTEM MANAGEMENT	3	CONSULTANT
Strategist	- FORMULATING GROWTH STRATEGY FOR THE ECOSYSTEM - VALUE CASE SPOTTING VIA INTERNAL PLATFROM	2	CONSULTANT/ MANAGER
Legal consultant	- HANDLING LEGAL CONSIDERATIONS OF CONCEPT - HANDLING LEGAL ASPECTS AMONG CLIENTS	1	CONSULTANT
Designer	- CONCEPTUAL STORYTELLING - VISUALISING DATA VIA PRESENTATIONS, MOVIES OR OTHER	2	JUNIOR/MEDIOR
Workshop facilitator	- PREPARE PHASE 2: DESIGN SPRINT - FACILITATE DESIGN SPRINT	1	MEDIOR
Research lead	- CONDUCT THOROUGH RESEARCH INTO VALUE AREAS - PROVIDE ADDITIONAL ANALYSIS FOR CONCEPT CREATION	2	ANALYST
Senior manager	- SUPERVISE THE TEAM - MAINTAIN CLIENT RELATIONSHIPS	1	SENIOR MANAGER

Financials | Forecast

For more information please contact: jolen-the-janssen@live.nl

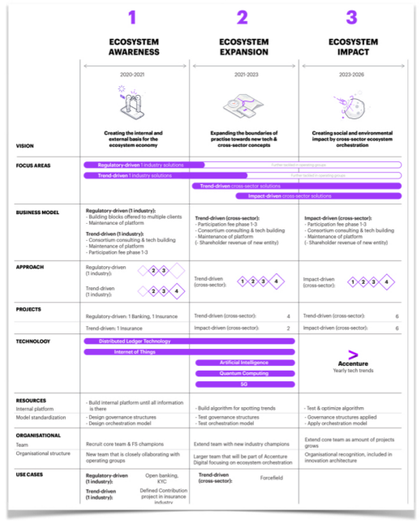
FINANCIALS

ROADMAP

ROADMAP | Introduction

A roadmap has been developed to create a smooth transition into the new way of working that his service is proposing. The roadmap consists out of three horizons all focusing on a different theme. Furthermore, this roadmap illustrates several focus areas.

The following slides will go into detail on each of the categories in the roadmap.



ROADMAP | Horizons

1

ECOSYSTEM AWARENESS

2020-2021

Creating the internal and external basis for the ecosystem economy

The first horizon focuses on creating ecosystem awareness internally but also externally. This is done by focusing on regulatory urgencies. This horizon focuses one industry.

2

ECOSYSTEM EXPANSION

2021-2023

Expanding the boundaries of practise towards new tech & cross-sector concepts

In the second horizon the transition is made towards cross-sector solutions. Furthermore, the focus goes more to trend-driven ecosystem solutions.

3

ECOSYSTEM IMPACT

2023-2026

Creating social and environmental impact by cross-sector ecosystem orchestration

The third horizon focuses on cross-sector solutions with social or environmental impact. These projects are contribute to the UN sustainable development goals

ROADMAP | Focus areas

1

Regulatory-driven Industry solutions

The service starts with focusing on urgent regulatory matters. Accenture will develop solutions in the form of building blocks that can be offered to multiple clients

2

Trend-driven ecosystem solutions

Trend-driven ecosystem solutions come from a trend or customer demand opportunity which can be tackled easier when collaborating with others

3

Impact-driven cross-sector solutions

Impact-driven ecosystem solutions are cross-sector products and services focusing on making an impact in the world.

ROADMAP | Business model

1

Regulatory-driven (1 industry):
- Building blocks offered to multiple clients
- Maintenance of platform

Trend-driven (1 industry):
- Consortium consulting & tech building
- Maintenance of platform
- Participation fee phase 1-3

The main revenue stream of this focus area is therefor **selling this platform, service or product** to multiple clients with a small level of customisation. Furthermore, within this focus area, Accenture is the logical partner to do the **maintenance** of the platform, or service as well.

2

Trend-driven (cross-sector):
- Participation fee phase 1-3
- Consortium consulting & tech building
- Maintenance of platform
(- Shareholder revenue of new entity)

Trend-driven ecosystem solutions work with a consortium and can therefore charge **consortium consulting fees.** Also, **technical building** hours can be sold as well. Just like the regulatory driven ecosystem solutions, Accenture can be the party to **maintain** the product, platform or service.

3

Impact-driven (cross-sector):
- Participation fee phase 1-3
- Consortium consulting & tech building
- Maintenance of platform
(- Shareholder revenue of new entity)

When moving towards more cross-sector ecosystems, Accenture can charge a **participatory fee**, that covers the costs for the initial Proof of concept.

ROADMAP | Approach

1

Regulatory driven (1 industry): 2 3

Trend-driven (1 industry): 2 3 4

2

Trend-driven (cross-sector): 1 2 3 4

3

Impact-driven (cross-sector): 1 2 3 4

The approach to service depends on the focus area. For the regulatory-driven ecosystem solutions, phase two and three are applicable as the internal platform is not useful for a single industry focus and as regulatory- driven ecosystem solutions focus on creating building blocks that can be sold to multiple clients, a consortium (phase four) is not applicable either. Trend-driven ecosystem solutions do have a consortium phase just like impact-driven ecosystem solutions. When transitioning from single-industry to cross-sector solutions, the internal platform becomes more important.

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ROADMAP | Technology

1

Distributed Ledger Technology

Internet of Things

2

Artificial Intelligence

Quantum Computing

5G

3

> Accenture
Yearly tech trends

Besides blockchain, the focus of the first horizon will also be on IoT. This technology has a lot of potential for ecosystems as it is about connected devices. This trend was present in the Accenture tech trend 2018 report. As these trends are most of the time two years ahead of the market, this technology will be good to be looking at in 2020.

In the second horizon more emerging technologies will be included; AI, quantum computing and 5G. The first two are part of the tech trends identified by Accenture (2019a) as DARQ power. 5G is part of the Gartners hype cycle prediction of that technologies that will reach the plateau of productivity in 2 to 5 years.

In horizon 3 the focus will be on the technologies that will be identified in the Accenture tech trends of year 2023. From that moment on, each year the Accenture tech trends will form the continuous basis for the service.

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ROADMAP | Overview

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	1	**2**	**3**
	ECOSYSTEM AWARENESS	**ECOSYSTEM EXPANSION**	**ECOSYSTEM IMPACT**
	2020-2021	2021-2023	2023-2026
VISION	**Creating the internal and external basis for the ecosystem economy**	**Expanding the boundaries of practise towards new tech & cross-sector concepts**	**Creating social and environmental impact by cross-sector ecosystem orchestration**
FOCUS AREAS	**Regulatory-driven** 1 industry solutions (Further tackled in operating groups) **Trend-driven** 1 industry solutions (Further tackled in operating groups) **Trend-driven** cross-sector solutions **Impact-driven** cross-sector solutions		
BUSINESS MODEL	**Regulatory-driven (1 industry):** - Building blocks offered to multiple clients - Maintenance of platform **Trend-driven (1 industry):** - Consortium consulting & tech building - Maintenance of platform - Participation fee phase 1-3	**Trend-driven (cross-sector):** - Participation fee phase 1-3 - Consortium consulting & tech building - Maintenance of platform (- Shareholder revenue of new entity)	**Impact-driven (cross-sector):** - Participation fee phase 1-3 - Consortium consulting & tech building - Maintenance of platform (- Shareholder revenue of new entity)
APPROACH	Regulatory-driven (1 industry): 2 3 Trend-driven (1 industry): 2 3 4	Trend-driven (cross-sector): 1 2 3 4	Impact-driven (cross-sector): 1 2 3 4
PROJECTS	Regulatory-driven: 1 Banking, 1 Insurance Trend-driven: 1 Insurance	Trend-driven (cross-sector): 4 Impact-driven (cross-sector): 2	Trend-driven (cross-sector): 6 Impact-driven (cross-sector): 6
TECHNOLOGY	**Distributed Ledger Technology** **Internet of Things**	**Artificial Intelligence** **Quantum Computing** **5G**	> Accenture Yearly tech trends
RESOURCES Internal platform	- Build internal platform until all information is there	- Build algorithm for spotting trends	- Test & optimize algorithm
Model standardization	- Design governance structures - Design orchestration model	- Test governance structures - Test orchestration model	- Governance structures applied - Apply orchestration model
ORGANISATIONAL Team	Recruit core team & FS champions	Extend team with new industry champions	Extend core team as amount of projects grows
Organisational structure	New team that is closely ollaborating with operating groups	Larger team that will be part of Accenture Digital focusing on ecosystem orchestration	Organisational recognition, included in innovation architecture
USE CASES	**Regulatory-driven (1 industry):** Open banking, KYC **Trend-driven (1 industry):** Defined Contribution project in insurance industry	**Trend-driven (cross-sector):** Forcefield	

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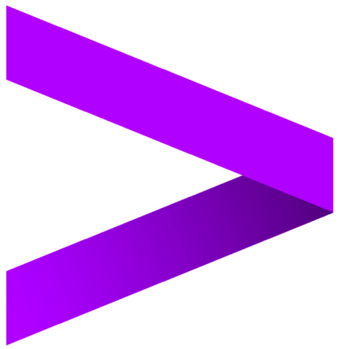

CONCLUSIONS

CONCLUSION

This document provided a detailed approach on how to orchestrate cross-sector ecosystems.

Cross-sector ecosystems have an enormous market potential. However companies are struggling with the implementation. The solution for this is Maestra:

Maestra offers cross-sector concepts by combining its sector knowledge, technical expertise and design skills.

These concepts are further developed together with multiple clients in an ecosystem where Maestra orchestrates & facilitates the ecosystem process towards market launch

This service creates cross-sector collaboration to stimulate societal and environment impact

In order to make this service a success, several additional elements were highlighted: financial forecast, a roadmap and a sales pipeline.

APPENDIX I

Assumptions of financial forecast

this section provides the assumptions for the financial forecast of the service. For more information please contact: jolenthe-janssen@live.nl