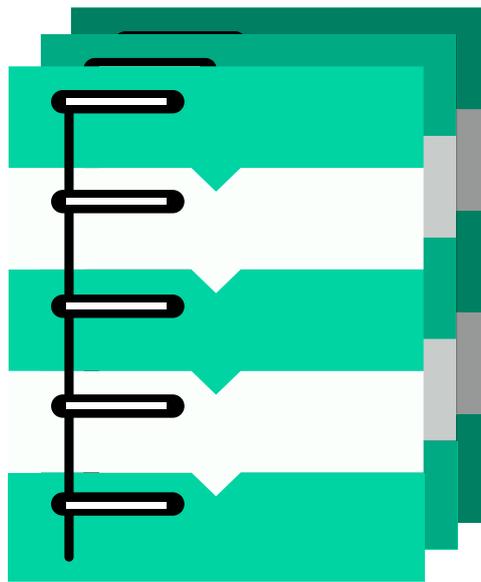


LIFE EVENT PATTERN FOR AURORA AI

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Government course at Aalto University*



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1 EXECUTIVE SUMMARY

As part of the Creative Sustainability program conducted in Aalto University, Design for Government (DfG'19) course is an advanced studio course which promotes understanding of design-driven approaches to the complex challenges of the public sector and government.

It is the link between students and the government organizations, which helps the students who are keen in understanding the working of the public sector and how design can be utilized in solving the problems in the context of policies and systems. On the other hand, it helps the government organizations to get a fresh insight into the systems and also be able to understand the empathic value of the design-driven approach to these complex problems.

This year the course had two different briefs commissioned by different ministries: Empowering Citizens through Artificial Intelligence commissioned by the Ministry of Finance; Boosting Consumer Rights for Finnish Business commissioned by the Ministry of Economic Affairs and Employment and the Finnish Competition and Consumer Authority with two teams working on each brief separately.

Our team's brief was titled "Empowering citizens through Artificial Intelligence". The project spanned over 2 and a half months from mid-February to the second week of May, during which we went through the different phases of the double diamond process from identifying the different needs of the stakeholders involved, understanding and mapping the systems to gain a deeper insight into the problem context, and behavioral lenses and tools to develop and design relevant solution. Empathy was the key binding element in all these phases of our project.

We were a team of 5 students from diverse cultural as well as study backgrounds. Nina Karisalmi, Doctoral Candidate from the Strategic Usability Research Group, Eva Duran, Masters in Creative Sustainability, Christopher Gros, Masters in Collaborative and Industrial Design, Hoai Van Chu, Masters in International Design Business Management and Nehal Jain, Masters in Collaborative and Industrial Design program from Aalto University.

2 INTRODUCTION

2.1 THE BRIEF IN CONTEXT

Our brief, “empowering citizens through Artificial Intelligence” was commissioned by the Ministry of Finance. The original brief provided to us stated that the background to this project brief was that Finland, as a nation is observing a profound digital transformation with the Ministry of Finance preparing a national program for artificial intelligence (AI) when the national information policy and a new Information Management Act are being developed. The ultimate goal to promote AI based digital transformation was to enable a transformation aimed towards a proactive society where people’s life events are focussed on through development of a seamless network of services, hence ensuring a holistic wellbeing of people living in Finland.

This project is a part of the national artificial intelligence program envisioned by the ministry, called Aurora AI which is working on similar goals of empowering the people of Finland through AI, done in collaboration with the national network, preparing for the newly elected Government of Finland.

Our project was part of the next phase of the Aurora AI project whose phase of preliminary study concluded on 28th February 2019. This new phase of Aurora AI which included our course, focussed on Finland’s EU presidency period which begins on 1 July 2019, where the ministry of Finance aims to propose the Aurora AI network for Europe, and as have Finland lead Europe into the new age of digital transformation. This would be done by piloting the concept of ‘life-events’ in context of migration of people within the European Union.

The questions and visions brief proposed for us to address in this project were huge and multifold involving different levels of complexities. Hence, our first and important task was to break down the brief into its bare essential elements and reframe the brief into a more graspable and tangible interpretation based on which we were to set our research plans.

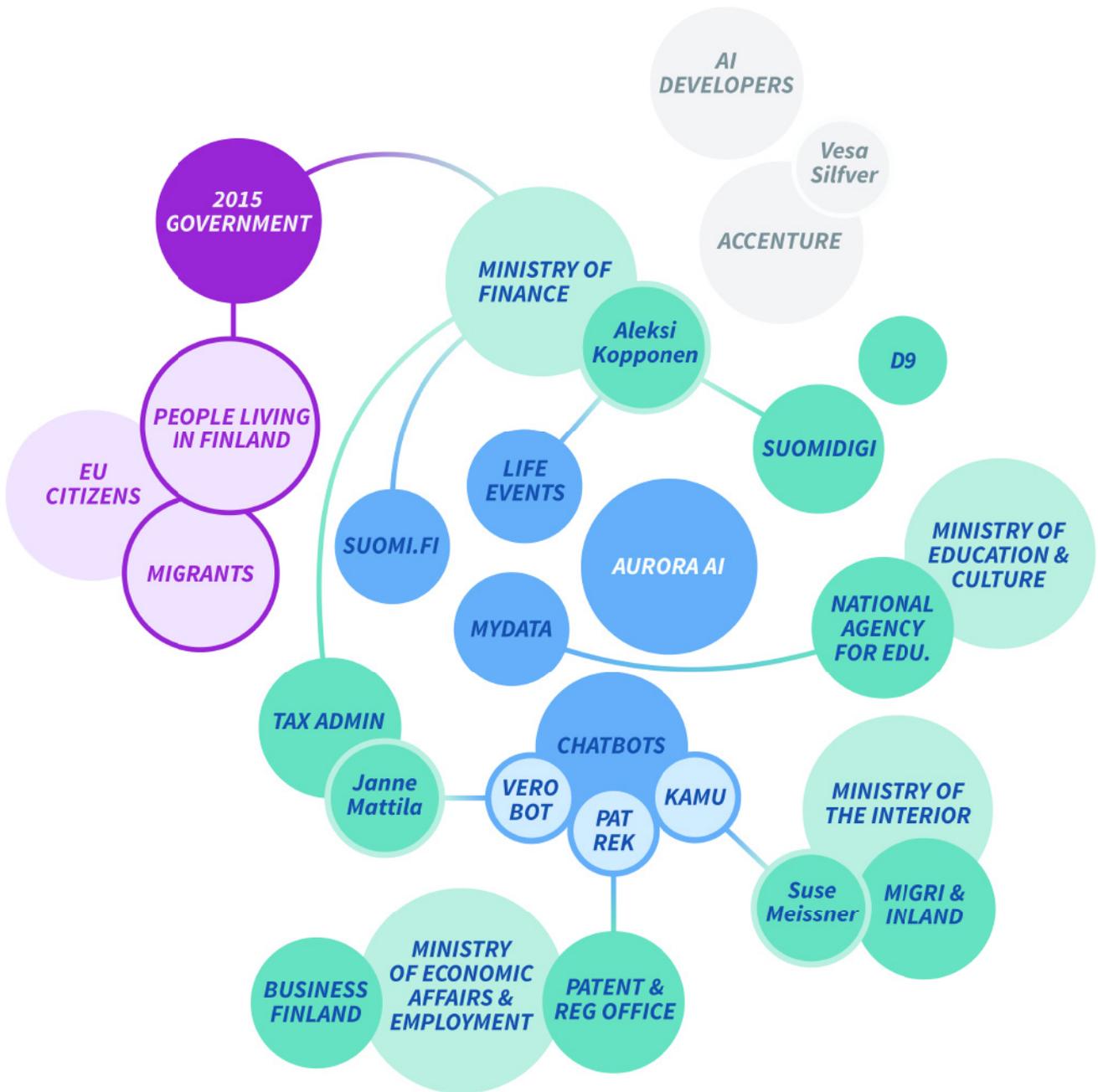


Figure 1: Stakeholder Map

3 RESEARCH

3.1 ATLAS WORKSHOP



Figure 2: stakeholder engagement with the ATLAS game



During the second week of the course we created an inclusive and open atmosphere for our workshop with the stakeholders as it is essential for its success.

The session allowed the participants to get to know each other briefly on both a professional and a personal level through verbal sharing and physical interaction.

We used the co-development board game ATLAS as the backbone of our explorative workshop.

This playful approach helped us in guiding the participants, both stakeholders and students, towards a common understanding of the project brief while giving space to express respective agenda and vision, but also perceived challenges and concerns.

From basic definitions of aims within Aurora AI to societal bias towards artificial intelligence, to collaboration between involved private and public parties, to concepts of multidimensional well-being.

In the post-workshop meeting with the supergroup we reviewed our preliminary findings.

The topics discussed gave us a joint preliminary framework to kickstart the individual project development within the two groups. After that our group started outlining the directions for the project based on our individual interests.

3.2 RESEARCH QUESTIONS

In the beginning of the course we started by discussing the goals of our project within our group. We discussed the goals from two perspectives: from the viewpoint of our commissioner and on the other hand from our own standpoint. We figured out that our commissioner's goals and the reasons why they need these goals to be met, are the following:

- To create a seamless and proactive chain of public services which are organized around people's Life Events, shifting the focus from individual services to a service network.
- To enhance the understanding and experience of multidimensional well-being of all people living in Finland through Aurora AI by giving them more control and providing better transparency when it comes to their data and access to services.
- To increase efficiency of public services by centering them around people's needs instead of bureaucratic demands, thus creating a just-in-time society. Thus civil servants need to be

able to see the bigger picture of the cases they are processing.

- To have Finland lead the way in digital technology (AI) and human-centered service practices, particularly with the upcoming Finnish EU Presidency in mind.
- To find new perspectives and fresh ideas for the project and its implementation by commissioning DfG to work on it.

We also elaborated on our own interests and concluded that our own goals for the project are the following:

- To deliver and narrate a concrete vision of what Aurora AI is (fill it with meaning) and how it helps people in specific situations by learning about different people's needs and emotions in the life event. These people's needs include not just those who make use of the services (migrants) but also the ones providing them (civil servants).
- To make a convincing case for the project to remain a priority for the next government.

- To promote and strengthen the European Idea (inclusivity, free movement, peace) by envisioning how the Aurora AI platform can support EU-migrants coming into Finland or moving to another country and what the implications for other EU-countries are.
- To explore how service agencies under the government share data and collaborate

We grouped the goals and formulated them into more concrete research questions for our project:

1) What does a human-centered service network need to provide in order to support citizens and civil servants alike?

2) What are the possibilities, challenges, and limitations of the Aurora AI platform (beyond the use of chatbots)?

3) What are the services these migrants need and what are the life events those constitute?

4) What are the challenges and experiences of different groups of migrants? Think of holistic wellbeing: family, culture, political stance, etc

3.3 DESKTOP & FIELD RESEARCH

We started with extensive desktop research and familiarized ourselves with the term Artificial Intelligence.

We studied reports from the ministry concerning Ethics and AI, Accenture's Trend report on AI, online courses and videos about AI both in Finnish and in English, as well as followed the State Development Company Vake's event on AI, Entergrates' event and the Population register Centre's Spring Splash event.

Additionally, we investigated how AI has been incorporated in other countries. As benchmarking served the examples of Estonia and New Zealand.

We explored existing AI services, such as the chatbots by the Finnish Immigration Service Migri, the Finnish Tax Administration and the Finnish Patent and Registration Office, and digital services around migration and working in Finland, such as Starting up smoothly and Moving to Finland.

We looked into the actual processes people have to go through by visiting the International House Helsinki, which provides services for the migrants in the initial phase.

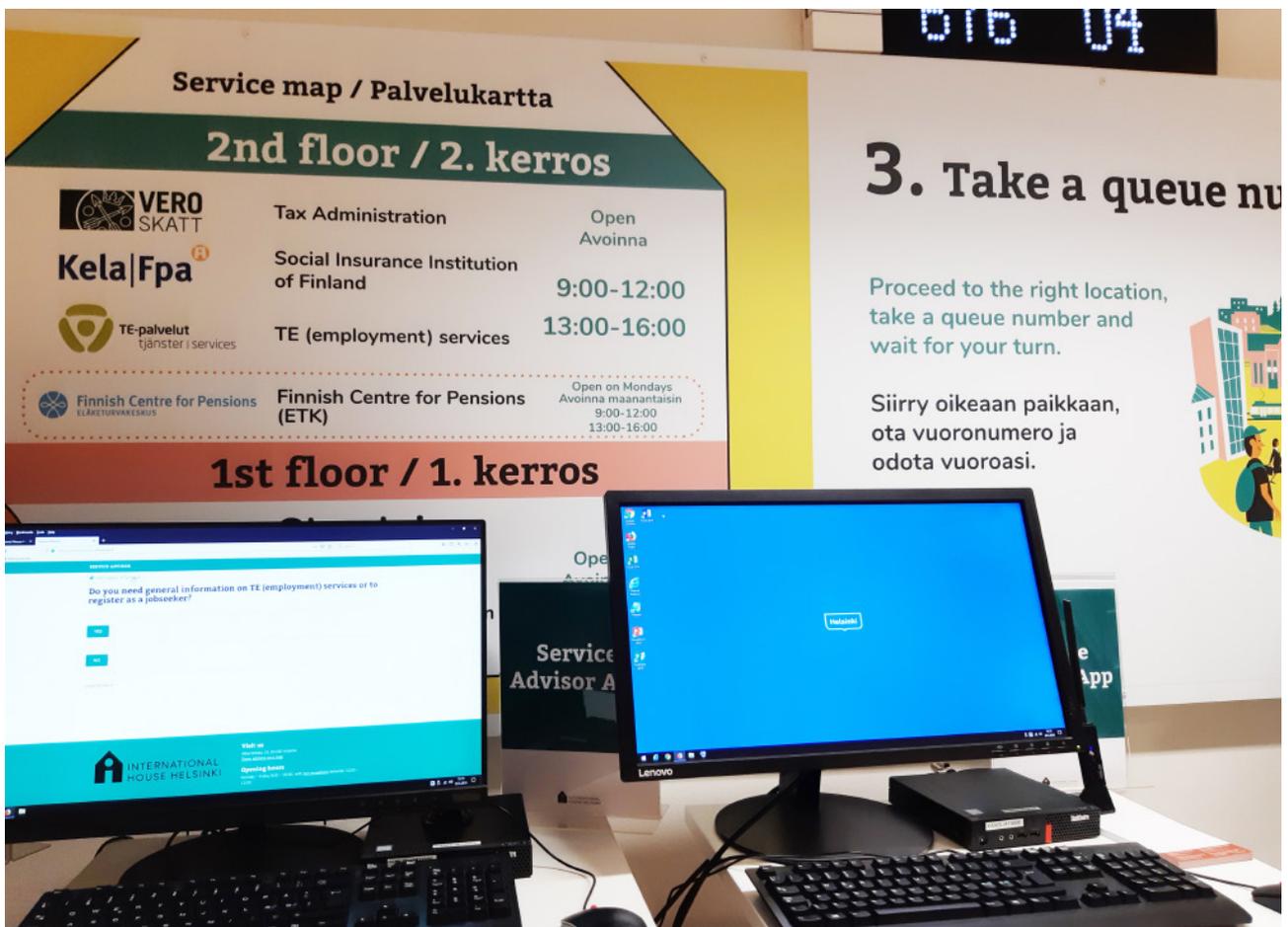


Figure 4 & 5: field research at the International House Helsinki

3.4 EXPERT INTERVIEWS

In order to answer our research questions we conducted semi-structured interviews with 13 professionals working within the field of migration. These interviewees worked as civil servants, consultants, specialists, project managers or service designers in different organisations:

Migri, former D9, Aalto University, Sitra, International House Helsinki, Saidot or Accenture. By choosing interviewees with different backgrounds both from the public and private sector, we wanted to achieve an overall understanding of the employees' work around migration.

“For every simple thing more than one organisation is involved. They are thinking in silos, every ministry or agency looks at their own stuff.”

— Civil servant

“Especially in migri, people’s work is measured by the amount of the decisions they made. — No room for a lot else.”

— Government service designer

“People are happy when they know there is one person who can help them with everything.”

— Aalto HR

“There is similar information on 20 different websites for migrants. This is confusing.”

— Government service designer

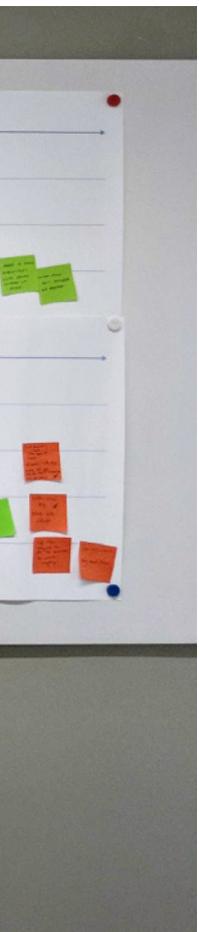
“To give up the Finnish values in order to win competition race of AI, is something we should not even consider.”

— AI specialist

3.5 MIGRANT JOURNEY MAPPING



Figure 6: making sense of the Migrant Journey Maps



As a group we decided to focus on the human-centered and empathic approach in order to understand the migrants' experiences when moving to Finland. Hence, we conducted interviews and draw user journeys together with them.

As none of our group is initially a Finn, we started with mapping out our own two migrant journeys: moving within the EU to Finland to study.

These journeys were used to find emerging themes and afterwards transformed in a Migrant Journey Template that focused on the touch-points, actions, eases & problems as well as emotions of the migrant from the point where he decided to move to Finland until the settling into Finland had occurred.

We interviewed two international students, one Post Doctoral Researcher who moved with his family and two international entrepreneurs. We chose to interview migrants with different life situations and reasons to move to Finland in order to get a broad understanding of the emotional and practical needs of the migrants.

4 ANALYSIS



Figure 7: discussing and analysing our research with an Affinity Diagram



4.1 AFFINITY MAPPING

Following the different types of research mentioned in the previous section, we compiled all of the data and insights into an affinity diagram – a method for grouping data based on common themes and relationships.

The affinity diagram was especially useful because each team member focused on different areas of research, so it helped us share our findings with each other in a structured and clear manner. It also allowed us to visualize what areas we have the most information in, which are lacking and it played a crucial role in helping us choose the direction that we want to take in our project.

The themes identified included: Understanding AI; AI visions and trends; Connections between different actors; User experience of civil servants; User experience of migrants, Human-centered design considerations for AI; System knowledge; Security and Data; AI Ethics.

As illustrated in the pictures the affinity diagram was fairly complex, which lead us to reframe the brief and looking at what the conditions are for a successful implementation of AuroraAI. More specifically, our starting point was the ideal vision of AuroraAI, then we moved backwards to identify what the current situation is missing.

4.2 SYSTEMS MAPPING

Based on the reframed brief of our project, we decided to focus on what the system would look like for it to be optimal for AuroraAI, and then contrasting that with the current situation through a simplified case study of an EU migrant coming to Finland to study. The case of a student served as a baseline for us to build on once we do choose a specific direction and it also meant that we could kickstart our research into the process sooner since two of our members are already part of this segment.

We presented the case study through a storytelling format and a visualization of the migrant's journey, which made it easier for the audience to empathize with and understand the pain points. Ultimately, the idea here was to put aside pondering on what form AuroraAI would take and instead focus on what goals it would aim to accomplish and what would be needed for that to happen.

After visualizing the process, complexities, and the lack of communication in the case study life event, we chose two areas or 'lenses' of focus – organizational and behavioral. These lenses guided us in narrowing down our focus and in ideating on solutions.

The organizational lens revolved around establishing channels and ways of collaboration, communication and data sharing between different institutions and organizations, whereas the behavioral lens focused on a mindset and work culture change that is required from these institutions.

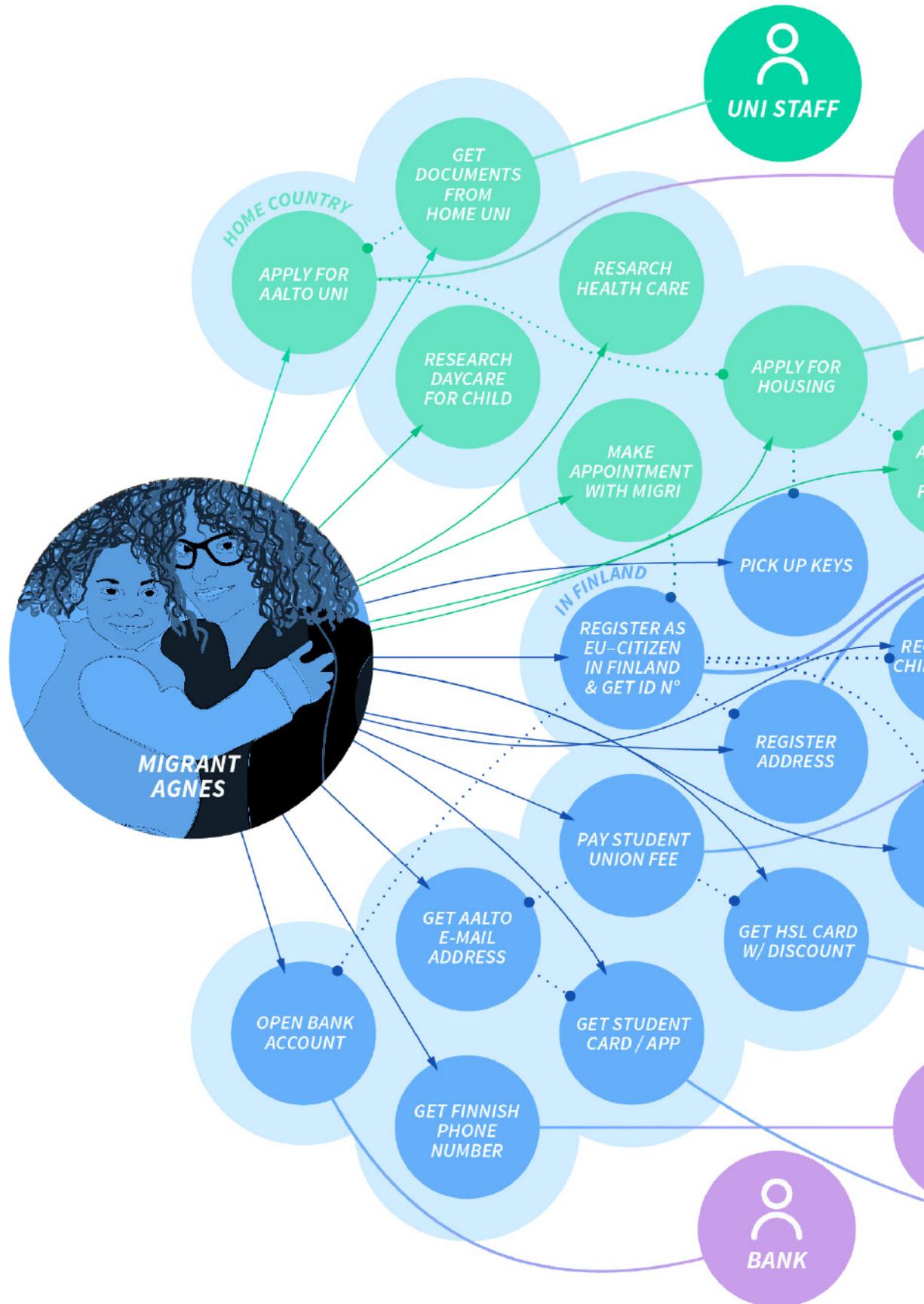
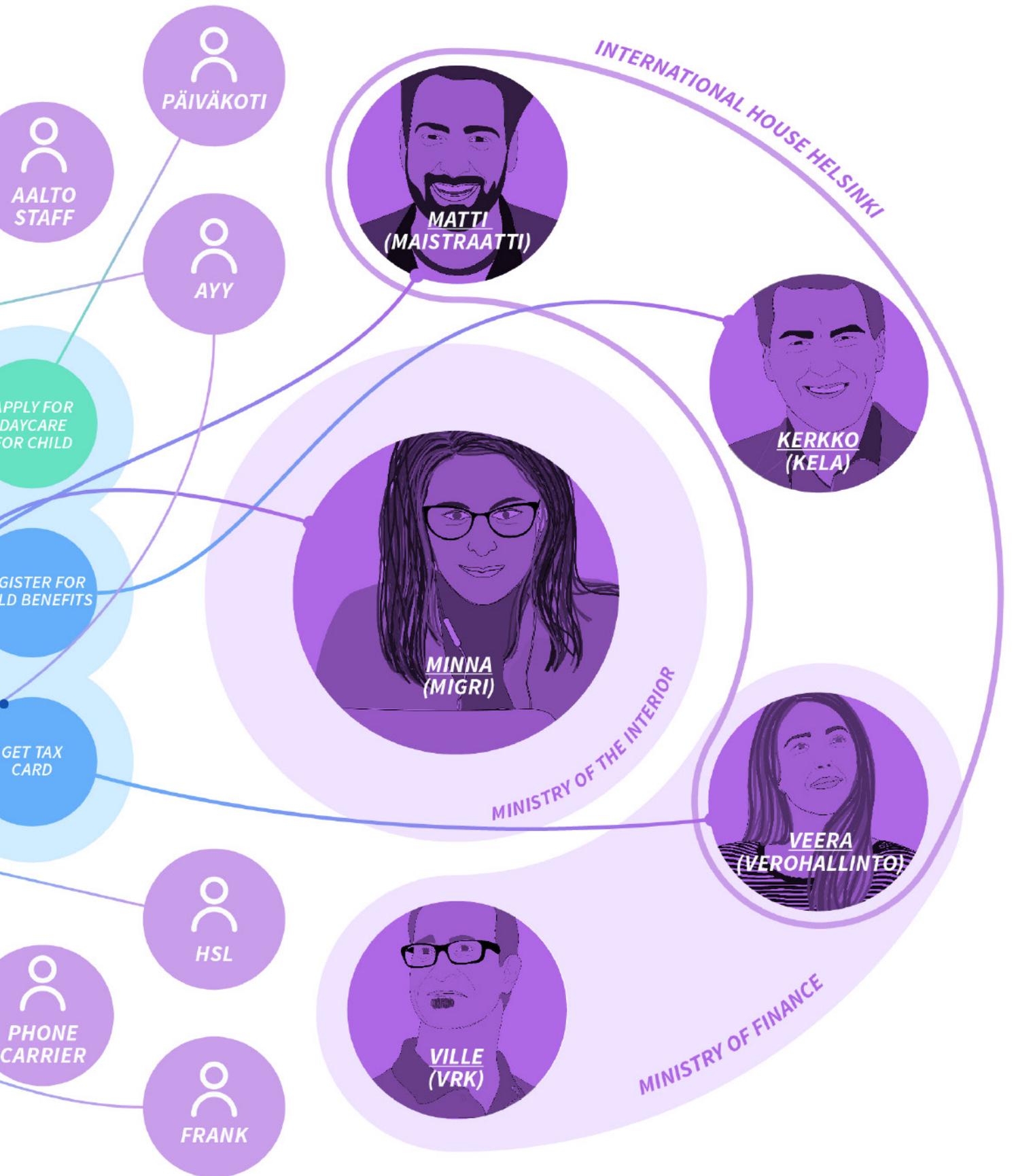


Figure 9: rich picture systems map



4.3 INSIGHTS

Using the pool of data and visualizations at our disposal, we began ideating on potential solutions to address our focus areas.

First, we focused on articulating our insights in the best possible manner, because badly articulated insights lead to bad solutions, so it was very important that the insights addressed the root problems. Based on the insights, we did an exercise called “How might we”, in which we framed the insights in the form of questions starting with “How might we” to explore different facets of the insights.

We divided our insights into **Civil servant related** and **Migrant related**:

Lack of data-sharing between organizations result in a fragmented service experience and a confusing and stressful process for migrants.

- How might we help civil servants identify the gaps users face so they can intervene appropriately?
- How might we make the services feel less fragmented?
- How might we make the services

less fragmented, the process less confusing without more data-sharing between the organizations?

- How might we increase migrants’ understanding of the process?

Not co-creating the reality of Aurora with stakeholders on all levels (such as civil servants in customer service and on the decision-making level) or existing organizations (such as the International House Helsinki) results in a lack of shared goals they can take ownership of and act upon.

- How might we bring the right people together to develop shared goals?
- How might we translate the vision into actionable shared goals?

Civil servants would love to contribute to a great service experience for citizens. But long-standing work practices and a bureaucratic mindsets in the organizations hinder them.

- How might we help civil servants feel encouraged to contribute to the Aurora Vision?
- How might we challenge work practices and mindsets?

For citizens and migrants alike all the different organizations, agencies, and ministries are perceived as „the government“. They have a hard time understanding why they don't always work together seamlessly.

- How might we clarify the citizens' & migrants' perception of the government to the service providers and initiate a change of mindset?
- How might we enable the different service agencies under the government to better portray themselves as “one government”?
- How might we communicate why the different public services don't always work seamlessly?

Only some services (such as Kela, Maistraatti, Migri, Tax) can be organized nationally. Other needs (for instance child day care or hobbies) are too complex and context-dependent to be centralized. A seamless service network needs pathways between the two.

- How might we bridge the gap between state-level and municipality-level services?

- How might we offer easy access to highly context-dependent and complex services?
- How might we understand the essential services in the context of different life-events?

Migrants being able to settle in fast, easy, and stress-free enables them to be productive in their jobs. But culture shock — the small hiccups and surprises in everyday interactions — can be an obstacle

- How might we anticipate cultural surprises?
- How might we make system knowledge graspable and understandable (instead of it being a matter of experience)?
- How might we support the migrants better so that they don't feel as stressed?

4.4 RE-FRAMED BRIEF & IDEATION

We were given an initial brief with the title of “Empowering Citizens through Artificial Intelligence”. The findings from our research and, ultimately, the insights of both civil servants and migrants, made us understand that in order to get there, we needed to approach the case from another angle. There is something that needs to be addressed first, and that is the behaviour and working practices of the agents.

It had become clear that the current working practices were fostering big backlogs and communication issues among civil agencies and service providers. For that, is crucial that there is an institutional change that allows a change in the working practices. One of the institutional changes would be, for instance, a transformation of the incentive systems at Migri. For the time being, Migri’s workers are incentivised through quantitative indicators, such as number of actions per day, and not qualitative indicators, such as successful connections to other service providers. Whereas to change this is a must for Aurora AI

to exist, we identified that there was a first step even before this institutional change, and that was to tackle how civil servants and service providers perceived their work itself.

As a result, we re-framed our brief as “Enabling civil servants to understand their services in the context of life events.” Life event has always been in the core of Aurora’s AI philosophy, depicting a reality where services and people in society are organised in a way that a specific life situation is supported by a network that can be accessed by any touch point.

Because the concept of life-event is intended to empower a seamless service network but, at the same time, the term is still unknown to the agents that would participate in such a network, our proposal finds its ground in transforming its understanding and perception.

Based on this and with the help of a set of EAST cards, we started ideating on our proposal.

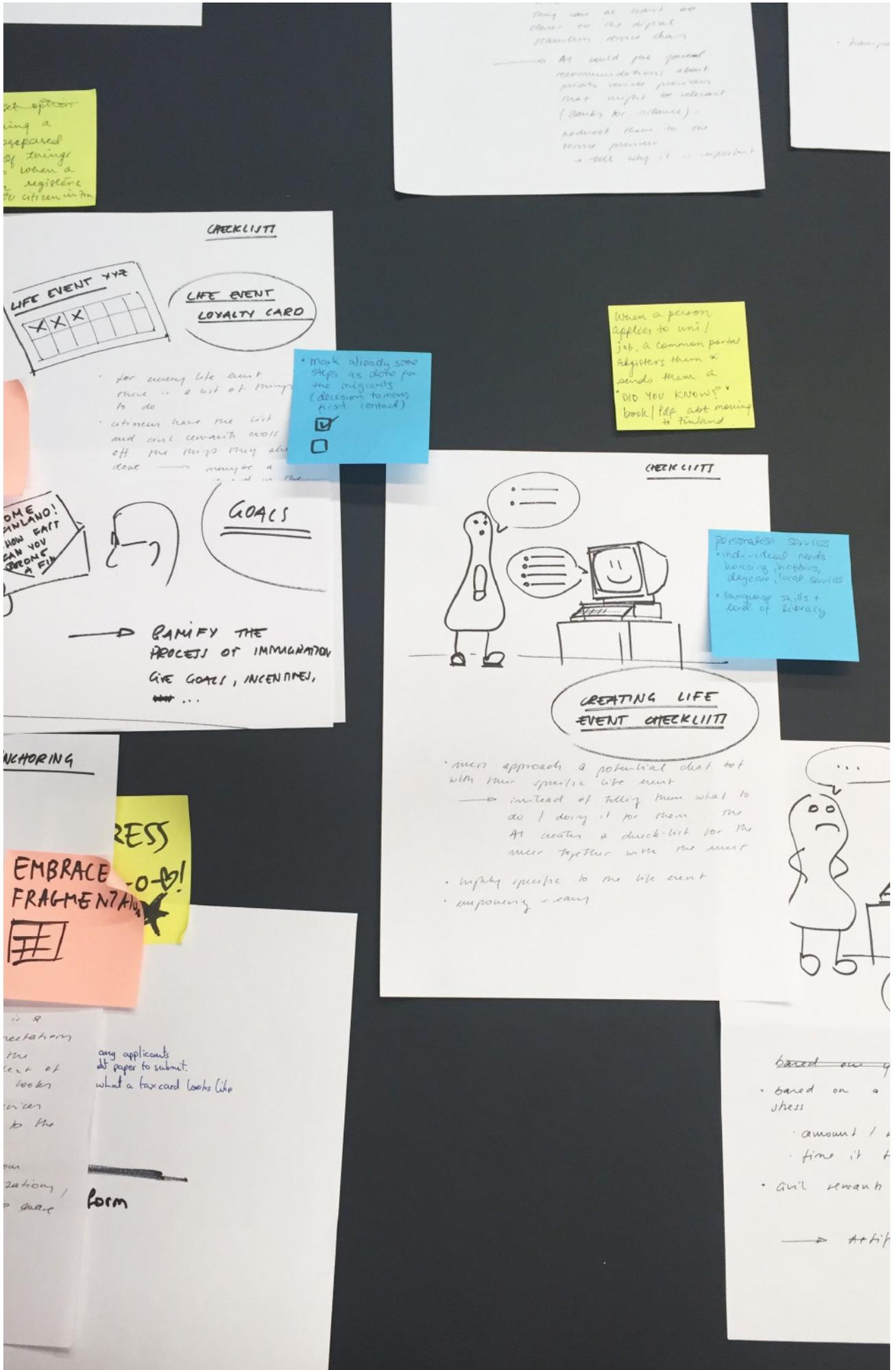


Figure 10: collaborative ideation

5 PROPOSAL

5.1 EXPLORING LIFE EVENTS

If life events are intended to give a human-centred approach to services, it is crucial to start the exploration through the perception of the end user. Specifically for our case study, our research showed that there are so many tasks to be done in the life event of moving to Finland, that it is mentally handier and less overwhelming to group them into categories or families that blend together.

We observed that migrants did not perceive everything they needed to do as an endless of individual tasks, but rather as a set of building blocks they needed to accomplish a reach a greater step. For instance, migrants would perceive that it is needed to register in Helsinki, take care about their financial aspects or health matters.

By using the concepts of individual tasks and building blocks, we are now able to create a formula that defines its composition. Many individual tasks form a building block. Many building blocks from a life event.

The fact of breaking down life events into building blocks and individual tasks that represents the first step to ensuring that there can be a common language between service providers and end consumers.

This structure and perception of common language becomes the chore of our proposal: The life event pattern.

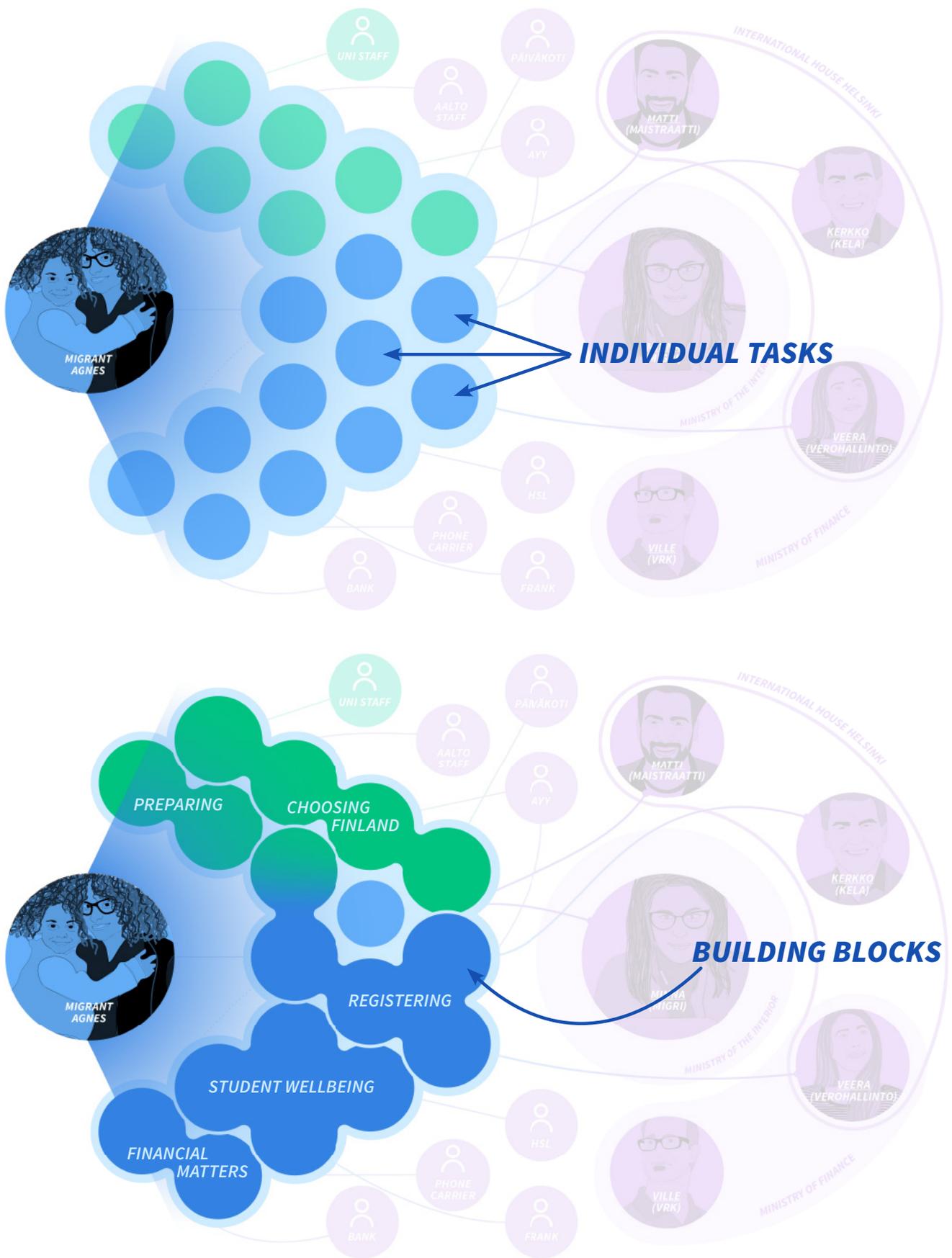


Figure 11 & 12: tasks and building blocks in the rich picture

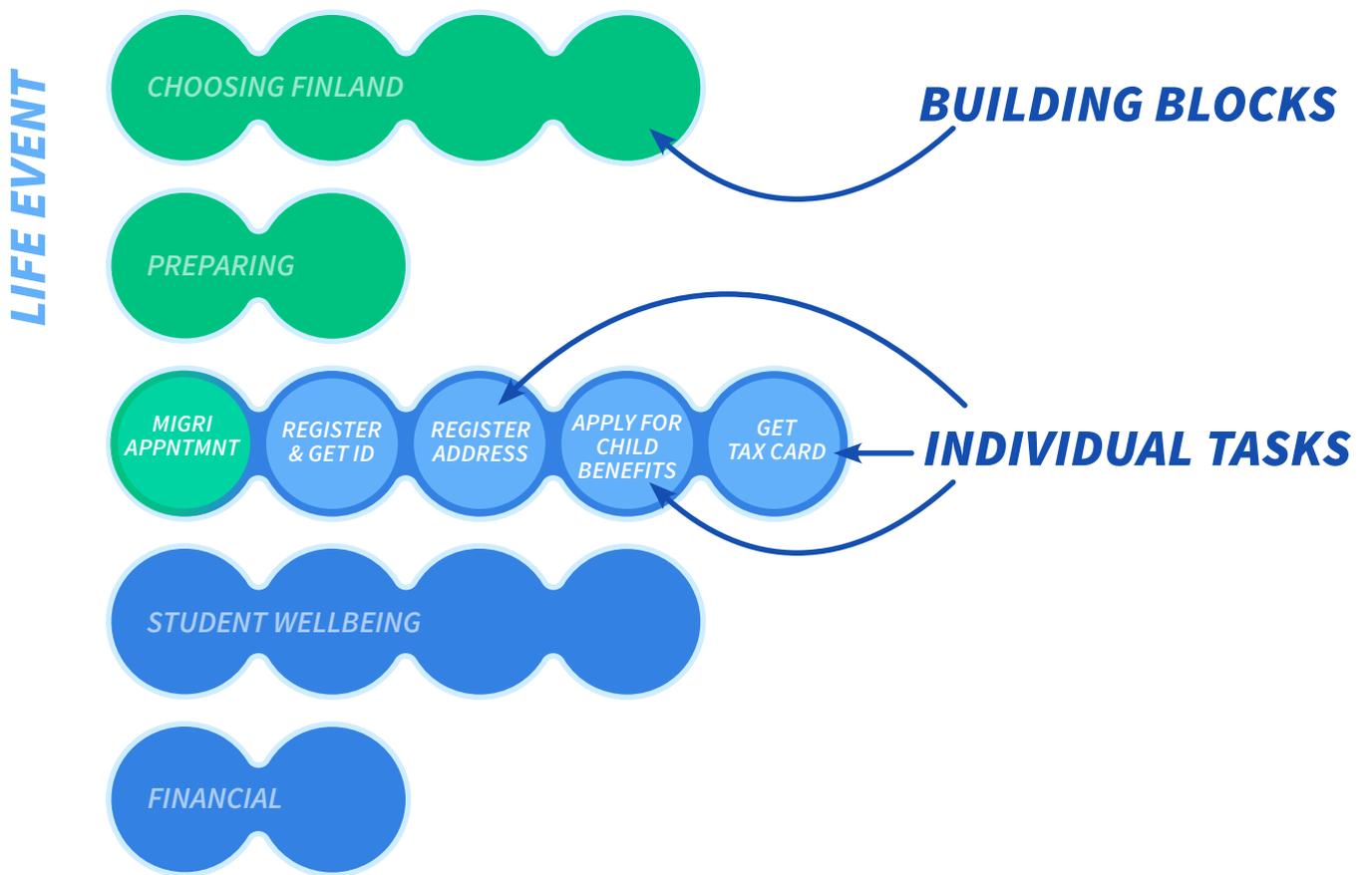


Figure 13: the Life Event Pattern

5.2 THE TOOL: LIFE EVENT PATTERN

Our proposal is the Life Event Pattern, which is both a tool and a method that follows the logic of combining individual tasks and building blocks to help civil servants and service providers to capture and understand their work in the context of life-events. At this stage, the proposal is only making an intervention for civil servants and service providers, not for final users.

The Life Event Pattern as a tool, is a dynamic and living document that shows the specific building blocks and activities that form a specific life event, such as “Choosing Finland as a study place”, “Preparing for life in Finland”, “Communication and Public Transportation”, “Leisure time”.

Inside every building block there are all the individual tasks that need to be performed in order to achieve that block. The tasks appear as a check-

list that takes into account parameters such as time, documents needed, deadlines, as well as shows other relevant information such as which service provider is accountable for which part of the process, and where can the information be found in its original form.

This part is crucial because at this point, because the intricacies among the different service providers are finally visible in a tangible, sequential and accountable way. Service providers need to work with one another across agencies, but we have seen that these connections are opaque from their perspective, and the combination of connections can be so diverse depending on the life-event that it is impossible for service providers to see them without a consistent support and guideline like the Life Event Pattern.

Choosing Finland as study place



- The student applies to their university **University**.
- If the university decision is positive, the students needs to **accept their study place**. **Proof of study place** is an recurring document that they will need at several service points.
- They need to create an EnterFinland profile on the **EnterFinland** website. Information on the the required documents can be found there as well.
- They should order **European Health insurance card** from a **home country institution**. They should order the card for other family members as well. The card is required for medical treatment in the public sector.

Preparing for life in Finland



- The student should to **apply for housing** at least 4 months in advance as apartment queues can be and it is unclear how long it will take to get an apartment. Incoming students should apply to both **AYY and HOAS**. For AYY, the student cannot move in before the 1st of August/January for the fall/spring term respectively. They will need a **Proof of study place**.
- They need to **apply for daycare** for their child(ren) at least 4 months in advance: **Hel.fi daycare infopage & list; Espoo.fi day care infopage & list**. For online application, both the parent and the child need to have a **Finnish ID or Bank Identification**. Otherwise they need to fill the paper form. For private daycare centers, the parent should contact the centers directly.

Registering right of residence



- To **register as an EU citizen living in Finland**, one must apply for Right of Residence through the **Maistraatti** website. This person should also apply on behalf of their children as well. **Identification and proof of study place** will be required, as well as **official proof of family ties** with the child.
- Book appointment at a Migi service point** through the **EnterFinland** website.
- Visit the **Migi** service point with the original documents from the application and printed application form.

Student health and wellbeing



- Once the Right of Residence is registered, this person is eligible for public health care. **Maistraatti** can confirm whether this person has this right, but the application for public health care is through **Kela**. After that, they will receive a **Kela card**.
- The person is eligible for **YTHS** healthcare if they study at a Finnish higher education institution and have **paid the student union fee**. For their first appointment they should bring their **passport** or have an **online banking ID**. Certain services will require a **Finnish phone number**.
- This person may be eligible for Finnish social security benefits if they have a permanent residence. However, they are **not** eligible for permanent residence if they are in Finland only to study, without work or family ties.

Taking care of financial matters



- This person is eligible for financial aid for students from **Kela** if they have permanent residence or work for at least 4 months (minimum 18h/week).
- They can choose to **set up a Finnish bank account** to easily manage their day-to-day banking and asset management. They can reach out to the **Finnish Financial Ombudsman Bureau** for advice on banking matters.

Communication and public transport



- Once their **address is officially registered at Maistraatti** and they are **member of a student union**, they are eligible for the **HSL season ticket student discount**. To receive the student discount, this person must bring official identification, a student card with the current term sticker/Frank. If they don't have a student card yet they can bring a filled and stamped discount ticket application form.
- This person can **get a phone subscription package** if they have a **Finnish ID** and a Finnish Address, otherwise they can **get a pre-paid SIM** card. The easiest way to find information on what fits the person's profile and eieligibility is to talk to the individual **telecom service providers** individually.

Prepare leisure time



- The student can **sign up for sports facilities at Uimahalli**. Signing up takes place at the customer service with the **student card/proof of study place, ID card** and a username (the username that is used to log on to school computers). After signing up, the student can buy a training card, book courses or individual services, and make court and gym reservations online with his username and password.
- As a parent, this person should **explore hobbies and activities for their children**. This parent can look into, for example: playground and family houses (Espoo/Helsinki); Sports facilities for families (Espoo/Helsinki). The City of Helsinki and City of Espoo websites have a lot of information on sports and culture activities in the respective cities, so it would be very useful for this person to educate themselves through those portals.



Figure 14 & 15: Life Event Pattern example – Moving to Finland

5.3 THE PROCESS: PIONEERS

The most important part of our proposal is the perception of the working practices in the context of life events. This is the reason why service providers will be involved in the design of the Life Event Pattern. The process has 6 main steps.

- 1) Civil servants as pioneers**
- 2) Pioneers and Aurora AI designers team up**
- 3) Collaborative research on life events**
- 4) Ever growing life event knowledge**
- 5) Pioneers promote life event patterns with their colleagues**
- 6) Pioneers collaborate with Aurora AI developers.**

1) Civil servants as pioneers

As found in our research, civil servants do not have much free time outside of their core tasks to allocate it into experimental design research projects. Despite of the heavy workload, however, there are many civil servants who are extremely motivated and committed to help spot

and change the inefficiencies of the system, to experiment and propose alternatives.

We propose a new official title, “pioneers”, which are these civil servants across agencies that naturally have passion to improve their services and share the Aurora AI vision. They will voluntarily come from public, private and non-governmental organizations. Pioneers will come from public agencies such as the Finnish Immigration Service or the Finnish Tax Administration, but also from other sectors such as housing, banking, transportation, and sports clubs representatives.

Pioneers those civil servants that work in customer service so they are the ones that best understand the practical connotations of their needs, as well as few mid-management position workers, who are able to understand the organizational structures of their agencies.



Figure 16: civil servant pioneers

2) Pioneers and Aurora AI designers team up

They would volunteer to explore the concept of life events by working with Aurora AI designers, acting as a link between Aurora AI and the rest of their colleagues from their own agencies or organizations.

For instance, a Migri Pioneer would work with Aurora AI designers, as well as with Maistraatti, HOAS and HSL Pioneers. In this, this Migri Pioneer would be the link between The Finnish Immigration Service and Aurora AI and the digitalisation development plan.



Figure 17: civil servant pioneers with designers

3) Collaborative research on life events

The Pioneers spend a part of their working hours working with Aurora AI's designers along with real end users, understanding the different migrant journeys and uncover the knowledge on the synergies of the different services and service providers, to build up the life event pattern from real experiences.

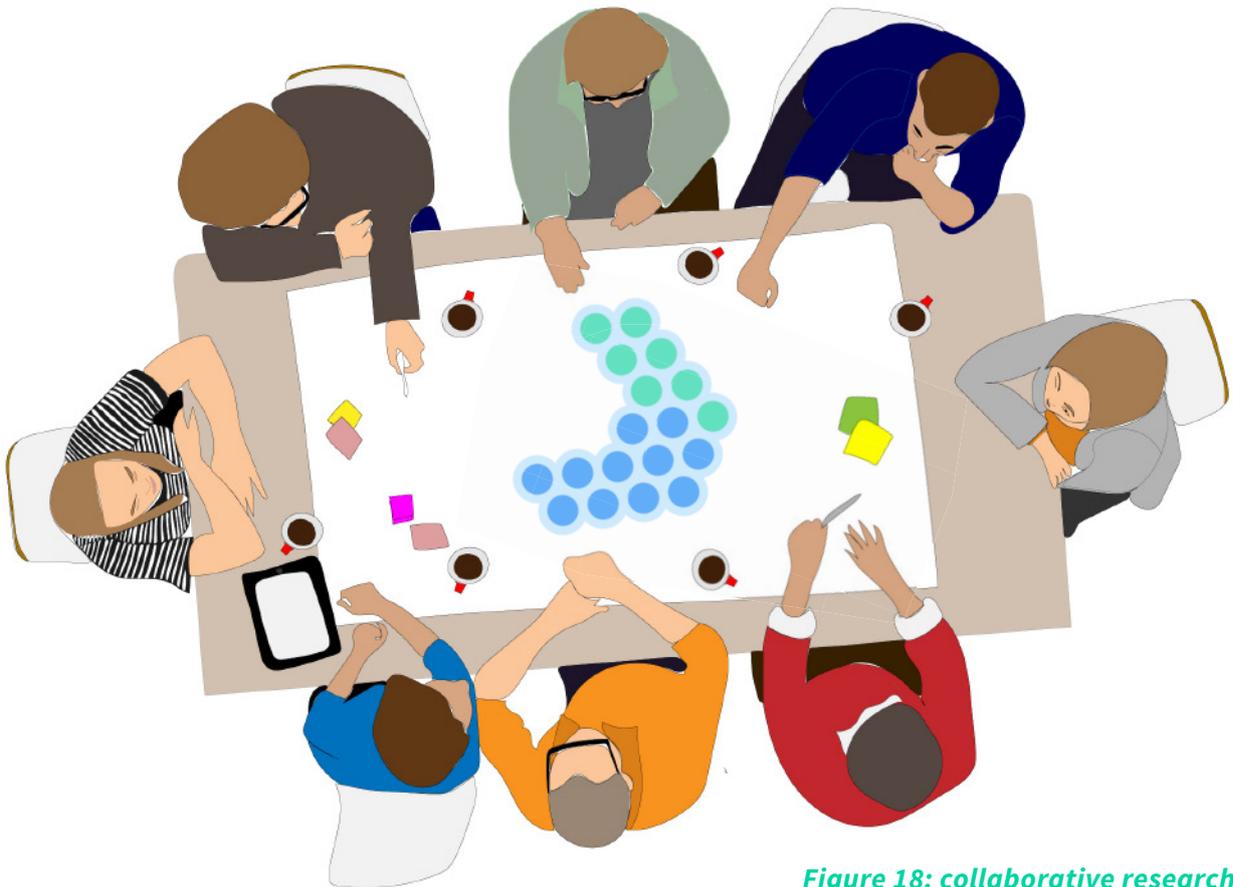


Figure 18: collaborative research

4) Ever growing life event knowledge

After their research, Pioneers and Aurora AI's designers gather the insights into a life event pattern. They uncover the building blocks and identify services involved in the life event of, for instance, moving to Finland.

This life event would be just an illustration of a series of many life events and multiple intertwined building blocks that can be combined into insightful Life Event Patterns.

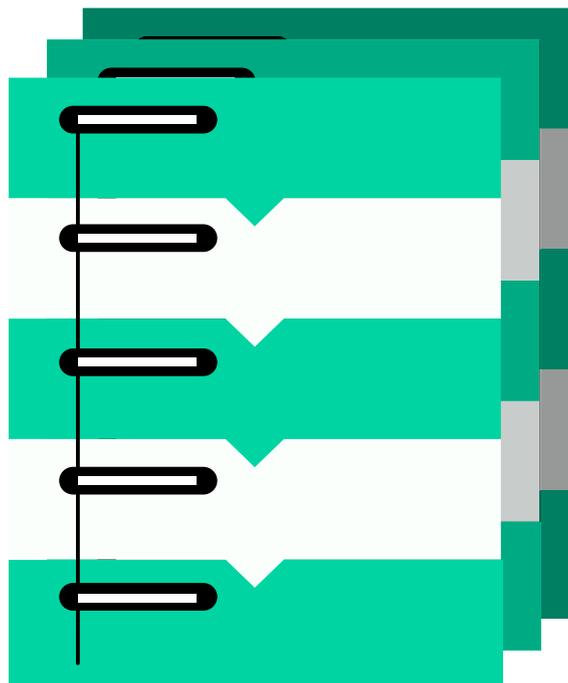
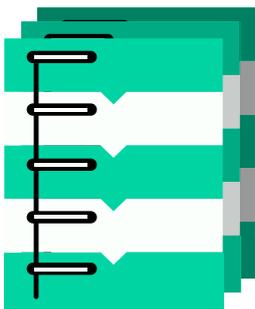
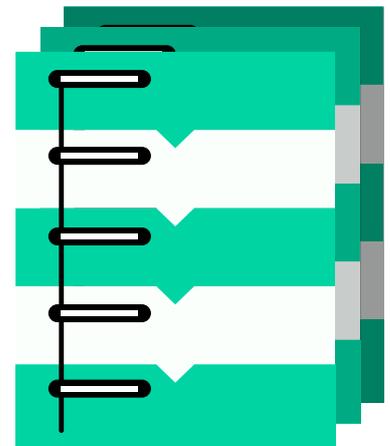


Figure 19: Life Event Patterns

5) Pioneers promote life event patterns with their colleagues

Once the Pioneers have been involved into building patterns and working with pioneers from other agencies, they are able to go back to their own agencies, engage the rest of their colleagues and promote the inclusion of considering life events into their working practices. The fact that also mid-management workers are Pioneers, support the promotion of the concept. Civil servants Pioneers that have customer service positions are supported by the authority figure of these mid-management Pioneers on what is being shared.

The engagement could happen in the form of workshops, talks, games, events, celebrations, or other type of activities. They would be tailored to every agency and company, according to their culture and identity.

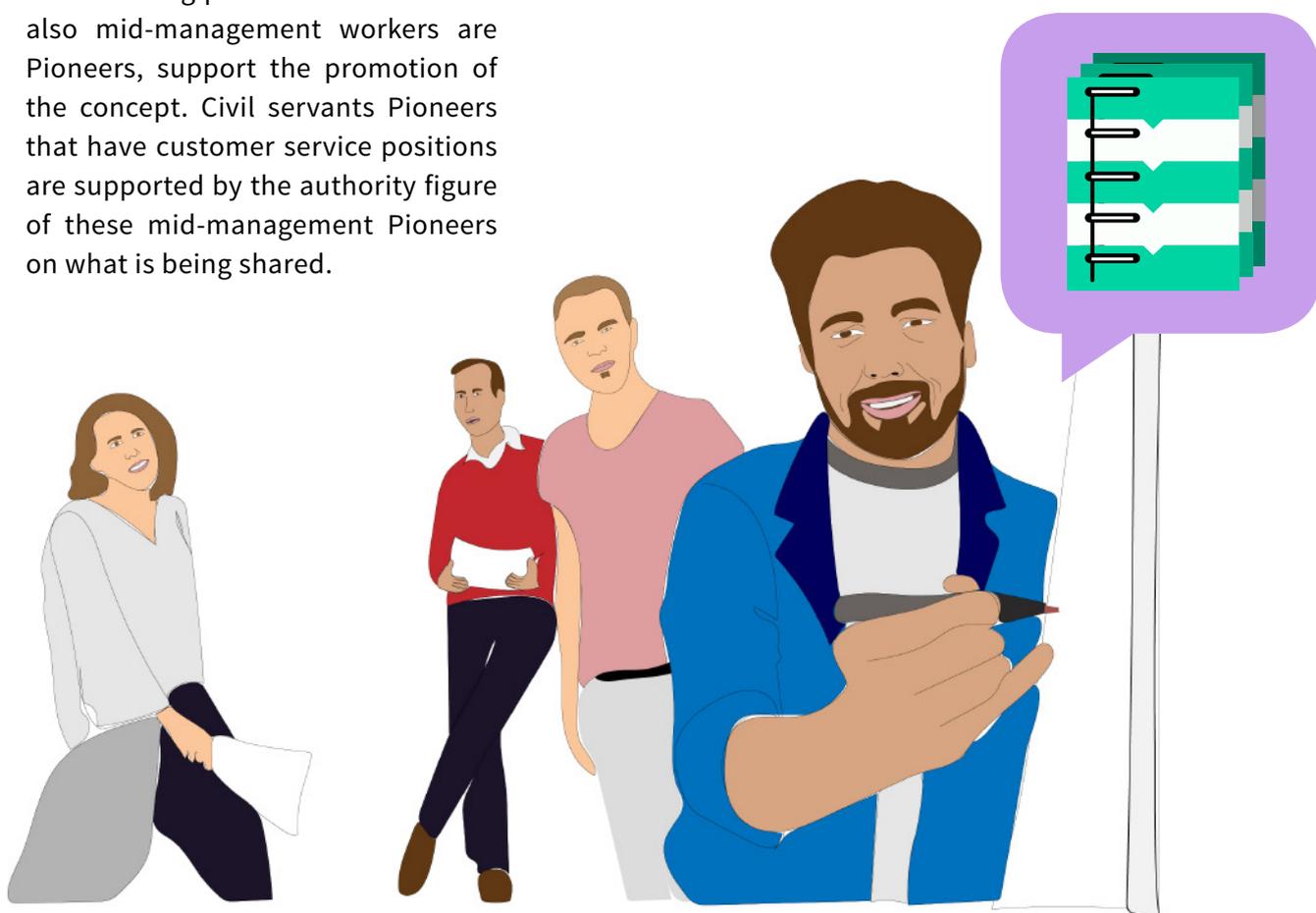


Figure 20: Promoting Life Event knowledge

6) Pioneers collaborate with Aurora AI developers.

Pioneers would also have the role of working together with Aurora AI's network developers - so the findings of the research could be input into the AI enabled system that will support the seamless service network.

Civil servants and service providers would contribute with their knowledge and experience. Developers would be able to transform it, through an ethical lense, into further guidance to support the combination of individual tasks, building blocks and, ultimately, the creation of tailored life event patterns.

The information will enable the functioning of algorithms that will comply with consistent ethical requirements. It is important to note that the information needed for the life event patterns is often connected to sensitive fields for end users, for example, health care. When the creation of life event patterns ceases to be manual and starts to be automatic, it is primordial that it will protect privacy of the final users as well as other ethical concerns when compiling with relevant data and sharing the contexts.





Figure 21: Life Event Patterns as a part of AuroraAI

5.4 RELEVANCE

Establishing a Life-event mindset

The Life Event Pattern is making knowledge visible to the different civil servants. It is important to say that this is not new knowledge, but knowledge that already existed but was hidden, not combined across agencies in a comprehensible way. This would ultimately help, for instance, a worker at Migri to be aware that the first time registration at Mais-traatti is in downtown Helsinki.

This is the very first needed step for a bigger systemic change which aims to be disruptive. According to our research and our experts interviews, it would not be possible to successfully implement such new framework if civil servants and service providers did not understand the need and the benefits of an AI-enabled network, and if they would be excluded from its design and planning.

It is essential for the players of the public, private and non-governmental sector, to have the literacy of AI and that they start to serve their own groups by actually observing how their groups are being treated in their algorithms.

Enabling an AI powered seamless service network

We must not forget that the ultimate goal of the Life Event Pattern is also to contribute to to an AI-enabled seamless service network. How is that contributing to AI?

We should recall that three government agencies in Finland (the Finnish Immigration Service, the Finnish Tax Administration and the Finnish Patent and Registration Office) have already started to test how chatbots can assist their tasks and answer customer's inquiries. However, these assistants are mindless. How can we make them mindful within the Finnish public service mindset that we need? The fact alone of introducing artificial intelligence to already existing processes will not create stronger synergies among service providers, nor transfer the knowledge across sectors or create a shared new culture and mindset around life events. Service providers need to have a common understanding about what a life event is and know how to combine the knowledge they have. For artificial intelligence to be able to empower citizens, it is important to go one step

back and work on the behavioural setting and mindset that will lead to the desired working practices.

Once this happens, there will be quality knowledge for Aurora AI to input. The Life Event Pattern will provide qualitative knowledge because it will:

- Be constructed from as many real cases as possible
- Give information about the framework, scope of action, and accountability from the different service providers.
- Give documented information to understand which are the individual tasks that create building blocks, and which are the building blocks that combined are part of a life event
- provide the basis to ultimately predict which type of people need which life event patterns .

Ultimately, these three main factors will promote that the seamless service network can automatically create life event patterns, which will progressively be more accurate. Once there is a system that is able to generate the life event patterns, they will be able to be used as:

- Guidelines for the workers at the workplace. The patterns will be integrated evenly across sectors in the used working softwares.
- Information support and guidelines for a possible intervention for the end user

Now, to briefly summarize, what we are proposing is a tool for civil servants to understand services in the context of life events.

Using the life event pattern, civil servants and designers work together with the people to define the life events.

Which is important because before we can have an AI-enabled seamless service network, we need to understand how the services connect.

5.5 IMPLEMENTATION PLAN

With regards to the **AuroraAI Development and implementation plan 2019–2023 based on the preliminary study on the Aurora** national artificial intelligence programme, we propose the owner of the initiative to be the Population Register Center (Väestökisterikeskus or VRK). People with service design expertise might be included in the proposed Support Team to oversee the implementation of the live event pattern practices.

Further, we identified the following three themes.

1) Seamless, personalised and impactful services for citizens:

“In order to create impactful services, well-functioning service chains that are centred around life-events and a service offering that efficiently utilises data, it is proposed that the government launch a programme for a human-centric society by implementing the AuroraAI service model for selected life-events and business activities.” (p.16)

→ The Life Event Pattern puts life-events at the core of the service network by prioritizing human perspectives and experience.

2) Management by shared situational awareness:

“The building of services around citizens’ life-events and according to demand poses a challenge to existing structures and management style. In the future, services must be managed based on data and situational awareness about citizens’ welfare, which means targeting solutions at citizens’ actual needs.” (p.17)

→ The Life Event Pattern proposes a tool for new management and organizational structures by the creation of the Pioneer title, which comprises different positions within an organization (customer service and mid-management level) and works across organizations (public, private and non-governmental) to uncover the key knowledge regarding citizens’ needs.

“The AuroraAI service model brings together organisations under a customer-focused co-management model that is cross-organisational and cross-sectoral. The service model enables customer data to be collated and processed for defined purposes in a way that facilitates the provision of services matched to a specific life-event.”(p.18)

→ It supports cross-organizational collaboration through the Pioneer concept and creates a new logic to capture life events (individual tasks, building blocks)

3) Impact and timely services from artificial intelligence:

“Identification of service needs from natural language: [...]make services easier for citizens to find and to improve the availability and accessibility of services. Artificial intelligence can be used to implement service discovery methods in which the citizen expresses their service needs” (p.22)

→ The Life Event pattern creates intelligent combinations of steps and procedures so they are presented in the easiest way to experience for citizens and reflect the intrinsic knowledge of the service providers.

“Compiling of service packages: The service chain offered to the end user consists of a number of individual services that are selected intelligently from among the thousands of services that make up the AuroraAI service offering. Compiling can be computerised and done in real time.” (p.22)

→ The Life Event Pattern will be able to automatically create tailored patterns suiting specific life events. This will be possible thanks to the previous collaborative work from the Pioneers, AuroraAI designers and developers and citizens.

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