



DELIVERABLE 3 - CONTEXT INQUIRY

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CONTEXT INQUIRY

1.0

INTRODUCTION

When i made my first thoughts about the Context Research, it was soon clear that i want to make just personal talks with not specific pre-information of the research partners about the Project in detail. The reason why i thought to do so was that the interviewed people are free to talk about what they think with no limitations.

I used an audio recorder to capture the voice of the probants. It doesn't made sense in my opinion to use an cultural probe approach in this case. I liked the idea of having immediate feedback of the respondents about my questions instead to wait and analyzing data with no direct contact with the polled people. I also foud it interessting to listen to the people and becoming aware of their specific situation. And after all there was also a limitation of time.

1.1

CONCERNED PEOPLE:

More than a million People are affected with pulmonary diseases in Switzerland. In other words, 12% of the Swiss population⁰¹ are having sanitary problems caused by air pollution or pollen flight. There are many different modes and types of allergy indications. But most of these people are having multiple allergys which are called: Mixtreactions. It means that a person who has a pollen allergy is not only responding to pollen flight of different grass, hazelnut or tree types. These people have also an allergy against eatables, chemical substances like ozone, particulate matter or animal hair.

Furthermore, it's been proven that simple pollen flight and it's impact are increased by air pollution. Scientists⁰² have demonstrated that chemical substances in our inner atmosphere like nitrogen monoxide and ozone are affecting the situation in areas of heavy industry or cities with much individual car traffic. Traffic is only responsible for a small part of particulate Matter and it's caused by humans. Other, natural origins would be for example Vulcan ash, pollen, saltwater (spindrift), forest fires, wood heaters or just erosion of stones through wind and rain..

2.0

QUESTIONNAIRE:

I planed to introduce my project very briefly and requested the probants first to speak free without direct questions. One thing i learnt from an research Module in Berlin⁰³ when i went to the Erasmus Semester was, that it's always good to start with if i can create an open atmosphere. That's why i thought that this may be an good way to loosen up the situation first before the questionnaire because i didn't knew every person before. It was just to know them a little bit better. After that i came up with several questions and i was trying to ask open questions instead of closed ones that could be answered with yes or no.

Gennerally i tried to arrange personal talks but in one case it wasn't possible. I met this person over the Internet in a special Pollen flight forum and he was only willing to answer some questions over the internet. But in the end he didn't answered the questions. That was a pitty because i thought i would be may interessting to see what this person will answer if he has only a catalog of questions and answering these without knowing about the hole reason why i do this or purpose at all.

QUESTIONNAIRE

his is the first questionnaire catalog i came up with. The questions were only meant to lead the discussion in certain boundries rather than await exact copy of answers.

QUESTION 01

Bitte beschreiben Sie wie sich die Allergie bei Ihnen äussert (Husten, Ausschlag)

QUESTION 02

Wann haben Sie die Allergie festgestellt. Ist sie angeboren? Hat sie sich entwickelt?

QUESTION 03

Hat Ihnen ein Arzt erklärt worum es bei Ihrer Krankheit geht? Haben Sie sich selber informiert?

QUESTION 04

Sind Sie wegen der Allergie in Behandlung oder ist eine sporadische Visitation unnötig?

QUESTION 05

Schränkt Sie die Allergie stark ein oder ist sie etwas womit man sich mehr oder weniger gut arrangieren kann?

QUESTION 06

Schauen Sie sich Pollen Prognosen an wenn Sie z.B eine Tour planen oder sich sportlich etc. betätigen wollen?

QUESTION 07

Pollen Informationsdienste wie etwa jene von Meteo Schweiz sind nicht kostenlos und in mehreren Ausführungen erhältlich. der Dienst für eine ganze Saison ist z.B richtig teuer. Würden Sie dennoch für einen Dienst bezahlen um Pollenflug Informationen zu erhalten? Würden Sie auch für eine solche Android oder iPhone App zahlen?

QUESTION 08

Sind Sie lediglich gegen eine besondere Art von Pollen Allergisch oder gegen alle möglichen Arten wie etwa in dieser Aufstellung:
Hasel, Erle, Birke, Esche im Frühling
Gräser im Frühsommer und Sommer
Beifuss im Spätsommer

QUESTION 09

Hat Ihnen während Ihrer Allergie etwas gefehlt das Ihnen weiter geholfen hätte und Sie beim Namen nennen können.

CONTEXT INQUIRY

2.1

TALKS

I had a few talks with different people. It could have been more because i had several other people on my list who were willing to answer some questions about pulmonary diseases . I was surprised to see how many people in my environment are living with pollen or general allergy problems. I discovered that a lot of friends or people that i know are having all different kinds of allergic symptoms.

2.2

STEPHAN, 35

Stephan has a pollen flight disease since seven or eight Years. He is most allergic to birch tree and hazelnut pollen. Eventually there is also more with it but he don't know exactly. He said, basically things that are blooming at the beginning of the Year. He doesn't remember when it was when he was sure he has pollen flight allergy. Stephan spoke allot with friends about the symptoms and for he it was swiftly clear that he could have an allergy against certain substances. He always had a airy allergic coryza but eight years ago he decided to make an allergy test. The result was a profile of his disease pattern. With this test he also found out that he has an allergy against apples and Hazelnut. It always had an burning feeling in his mouth when was eating these eatables. Useful informations he found mostly on the Internet. That was also the first place he started his investigations.

His doctor gave him a sort of calendar called "Leaflets" were pollen flight times were marked. The calendar represents informations based on experience of the past years. But since global warming became real, also the displacement of fauna growing changed. Today the start of the pollen flight season has moved to earlier states in the spring time, he mentioned.

ALLERGIC SYMPTOMS:

He reacts allergic to pollen from birch and hazel nut. Just things that are blooming at the beginning of the year. With the time, he said, you learn how to act and what you can expect. For example that the situation is getting better after rainfalls or washing ones hair every evening could enhance the situation. He never studied pollen bulletins or hooked up for similar information. But he also doesn't suffer strongly from hay fever that he wold rely on. He has pills against the allergy he could take but its no problem if he is not taking them.

In addition also Apples or hazelnut are a problem to him, they are triggering a burning feeling in the mouth. He never had this earlier but he is not disclaiming those fruits eatables just because of the allergy. For about three years, the symptoms are, however, becoming stronger more and more. The nasal flow is extreme and the eyes begin to burn.

USING OF ELECTRONIC HELPERS / DEVICES:

Stephan is a frequent user of modern smartphones and generally new technology. He has an iPhone but knows also other plattformen and uses them very often. He also tries lots of new applications and his phone has a big part in his everyday life. He says that he would surely pay normal fees for an application that gives him an particular benefit.

WISHES OR SUGGESTIONS FROM STEPHAN:

I discussed allot with Stephan about the possibilities. I know him a few years now and i know that he's always interested in new solutions and technology and interaction design in particular. We spoke for example about a tool who would be able to provide a personalized pollen bulletin which gives the user also the possibility to insert parameters and to receive feedback from it.

CONTEXT INQUIRY

2.3

MATHIAS, 30

Mathias has also problems with pollen flight. He is allergic since little kid but it got really bad last summer when he was sleeping at his girlfriends house that is located next to a sunflower field. Mathias is allergic against several things. He also has an allergy against some fruits and vegetables such as carrots. He thinks that also climate changes are increasing the situation because chemical substances in the atmosphere are affecting pollen from bushes and trees. After an Cortisone therapy, at the age of six years, he felt much better for a long period of time but the allergic symptoms came back two years ago. Lately he made some new tests to see how the disease pattern changed.

ALLERGIC SYMPTOMS:

The strong period of his allergic coryza is in august and september partial also in the spring time but not so strong like in the summer month's. He also feels high ozone values. The reactions of his body are then similar like against pollen. Mainly breathing problems. At the age of six years, he made a cortisone-cure for three years. That is to say; weekly injections with cortisone. Cortisone is a hormone which is also produced naturally in the body but People often have side effects when they are treated with cortisone for a long period or with wrong doses. A side effect could be amyasthenia or amyothropia. There is also another cure treatment. It basically works by the application of the allergen over a certain period but he never tried it out.

USING OF ELECTRONIC HELPERS / DEVICES:

As an engineer, Mathias is used with the handling of mobile communication. He has an iPhone application called "Wetterpro"⁰⁴ who is providing weather information's over the handheld. It has some background services but it don't provides specific air pollution data. He paid 3.30 Swiss Francs for this applikation. When i asked him if he would pay five or six Francs for an application with air pollution data he said «absolutely yes». He's not familiar with the service of Meteo Schweiz⁰⁵ pollen forecast. It means that he is not searching proactive for air pollution or pollen flight data. But regarding an mobile application, he said, if it's well made he could imagine to buy it if he could save the one or the other pill.

He described the maximum Amount which the application could cost with 10 to 20 Swiss Francs for each season. He don't know actually how strong the medicament is that he takes now but he tries to take less and to only partial use of drugs because he is concerned about the side effects of the medicine. If there would be an App which would make it possible to watch how the air quality and pollen flight situation would be for the next day, it would be certainly an great help.

WISHES OR SUGGESTIONS FROM MATHIAS:

Information was always a great matter for him so he appreciated that he was told by the doctors what is important. In case of allergic person it could also be very basic things like washing hair in the evenings or that they should leave the window closed over night, changing bed linen - just things like that. He suggested also what he could imagine within an application just like the top five tips or something like a navigator that could give interessting tips based on informations of the user.

CONTEXT INQUIRY

2.4

AMAL, 33

Amal was a hospital nurse for a long time. Today she works at another place in another environment but she says that the fact that she had a medical education helped her allot with the handling with her disease. She also mentioned that as an allergic person she was happy to help other people with the same issues. She often reflected about her disease and what she could do to enhance her situation and inform other people about the things she found out. When i asked her which channels she uses to inform herself or if she was been informed by doctors or else, she said that she informed all on herself about her affection. The doctor told her only about the kind of disease she is having and on what substances her body reacted. She already knew some practices like wahsing the hair every evening or changing often the bed clothes, closing the window over night. These were known measures for her. She had such a strong allergic reaction that she wasn't even able to walk on the stairs without having an asthma attack. Therefore the doctors always wanted to give her the strongest medications but she didn't wanted them.

ALLERGIC SYMPTOMS:

She has Asthma, a pollen flight allergy and she reacts on pet hair and grass as well. Overall, she has an Particulate matter allergy. She said that she discovered the disease during a boy scout camp when she had an asthma attack at the age of eleven years. She has an «stress-asthma». That means, that the symptoms of asthma are only occurring when she is exerting herself. Problems are inducing also pets around her. In this case, her pharynx is swelling and makes it hard to breath. Then she have to sneeze and her eyes are tearing. In this situation she take medications and washes her hands.

Amal is furthermore alergic against chemical substances in the low level atmosphere. High Ozone values are problematic for her because she then always get an dry throat and it also burns. High Ozone values⁰⁶ are occurring often in the summertime. When the sun is shining over a long period, UV radiation reacts with nitrogen oxides and causes ozone in perigee.

Amal mentioned that her Asthma is inherited from the family because her father and brother also has the same symptoms. She and her family are from Eritrea in Africa. She told me that the most people in her Country are having allergic diseases like the members of her family. Previously she thought that coughing is coming from smoking. After a research that she made, it was certainly clear for her that the reason why so much people in Eritrea are having the same problems like the is because of the desert in the near. The raising dust of sand seems to initiate these problems.

USING OF ELECTRONIC HELPERS / DEVICES:

Amal is not using any devices or electronic helpers to get informations regarding her allergy. She has an iPhone but no application such as for weather or similar. Amal Says that when she is going on a longer trip or vacations she always takes her medications with her like anti-allergic drugs and a spray for her asthma. That's it.

The reason why she wouldn't use an paid service to get more specific informations are not because of the money. She's just not certain if she really need all this data. After all she's also concerned about the truth of the data. If these informations are reflecting the real impacts.

WISHES OR SUGGESTIONS FROM AMAL:

She also mentioned more informations as a suggestion for a better understanding also for kids in primary school. according to her, it would make much sense to introduce this informations for education to kids in primary school. So they could learn as soon as possible about allergyies and perhaps react before it get worse.

CONTEXT INQUIRY

2.5

GENERAL ADVICES / IDEAS FROM RESPONDENTS

I asked people during the questionnaire if they missed something in the handling of their diseases moreover i also was interested if they had ever an idea in conjunction with their allergy type. Many said that they had too little information from doctors or parents. Amal for example, said that she missed an general information day in the school. Just like the visit of every elementary school class at the school dentist who every kid is attending to learn how to brush one's teeth. She mentioned that many childs in her class were affected with some kind of allergy. That would be the right to render possible information events at school. Therefore Information is an often indicated need.

2.6

Q AND A THE LUNG SPECIALIST DOCTOR:

I also had an Q & A per email with an specialist regarding pulmonary diseases. Dr. Rothe, from the Zürcher Höhenklinik Davos⁰⁷, gave me some answers concerning allergies in general. These answers were very helpfull to me because i could find out what is really important to patiens.

Q: CAN YOU NUBERALIZE THE RANGE OF AFFECTED PEOPLE IN SWITZERLAND?

For many people, not just allergies is respirable dust a health Problem, mainly with regard to bronchial as well as in terms of Arteriosclerosis. Not Allergic people but asthmatics suffer from particulate matter partial dramatically.

Q: FROM A MEDICAL POINT OF VIEW, CAN YOU SAY THAT THERES A CONNECTION BETWEEN POLLEN AND CHEMICAL SUBSTANCES IN THE AIR?

It is estimated that diesel particulate matter, bind to pollen, increase the allergenicity of the pollen massive. 25 years ago, a Japanese study has shown that in cities (littlepollen, much diesel soot) are living many more people with pollen allergies, as on the land side (a lot of pollen, little Russ)

Q: SOME PATIENS THAT I INTERWIEVED WERE TOLD THEY SHOULD DO SPORTS. OTHERS ON THE ODER HAND, DON'T.

At a high pollen count (sunny, wind) people with pollen allergies should not take any outdooractivities, they would better using do sports in a hall. But sports increases the performance, so that a trained exercise-asthma manifested in everyday life much more rarely, as an untrained.

Q: IS IT RIGHT THAT MORE AND MORE PEOPLE ARE SUFFERING UNDER AIR POLLUTION AND POLLEN FLIGHT DISEASES?

In the past 100 years, the number of allergy sufferers has been steadily rising. In central Europe it is but in recent years have been a ceiling control. It is believed that our living conditions have led to the rise (sheltered children who grow up in the firstyears of life, «germ free », high particulate matter levels, etc.

CONTEXT INQUIRY

3.0

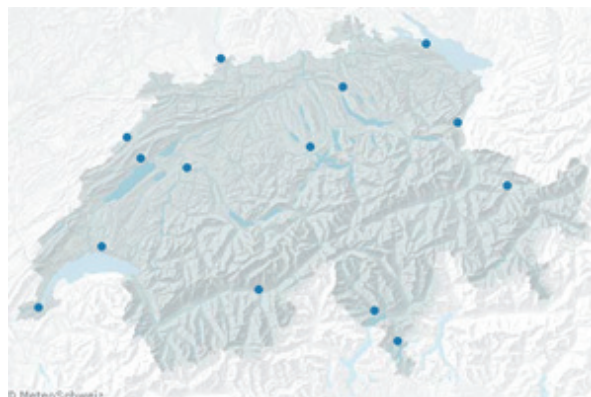
AIR QUALITY RESOURCES:

During the Process i also got in touch with the federal Departments who are delivering air quality information such as general chemical substances like dioxide's, respirable dust or pollen flight data. While the sourcing of chemical substances in the air are more or less uncomplicated to obtain, it is much harder to achieve data about the national pollen monitoring network. The reason lies in the charges of pollen flight data. The service costs thousands of swiss francs just for one season. The Swiss Federal Office of Meteorology and Climatology⁰⁸, located in Zurich, Geneva and Locarno are also providing cheaper data such as informations through short messaging system or email. but these are not appropriate for handling with mobile applications. Of course there would be an option to sell any possible mobile application on App Markets. When i asked people if they would pay for a service and / or mobile applications. Ive gained only few positive answers. In short , its hard to find out how many people would come into consideration of using such a new technology.

EXISTING TOOLS AND MARKET SITUATION (AVAILABLE SERVICES)

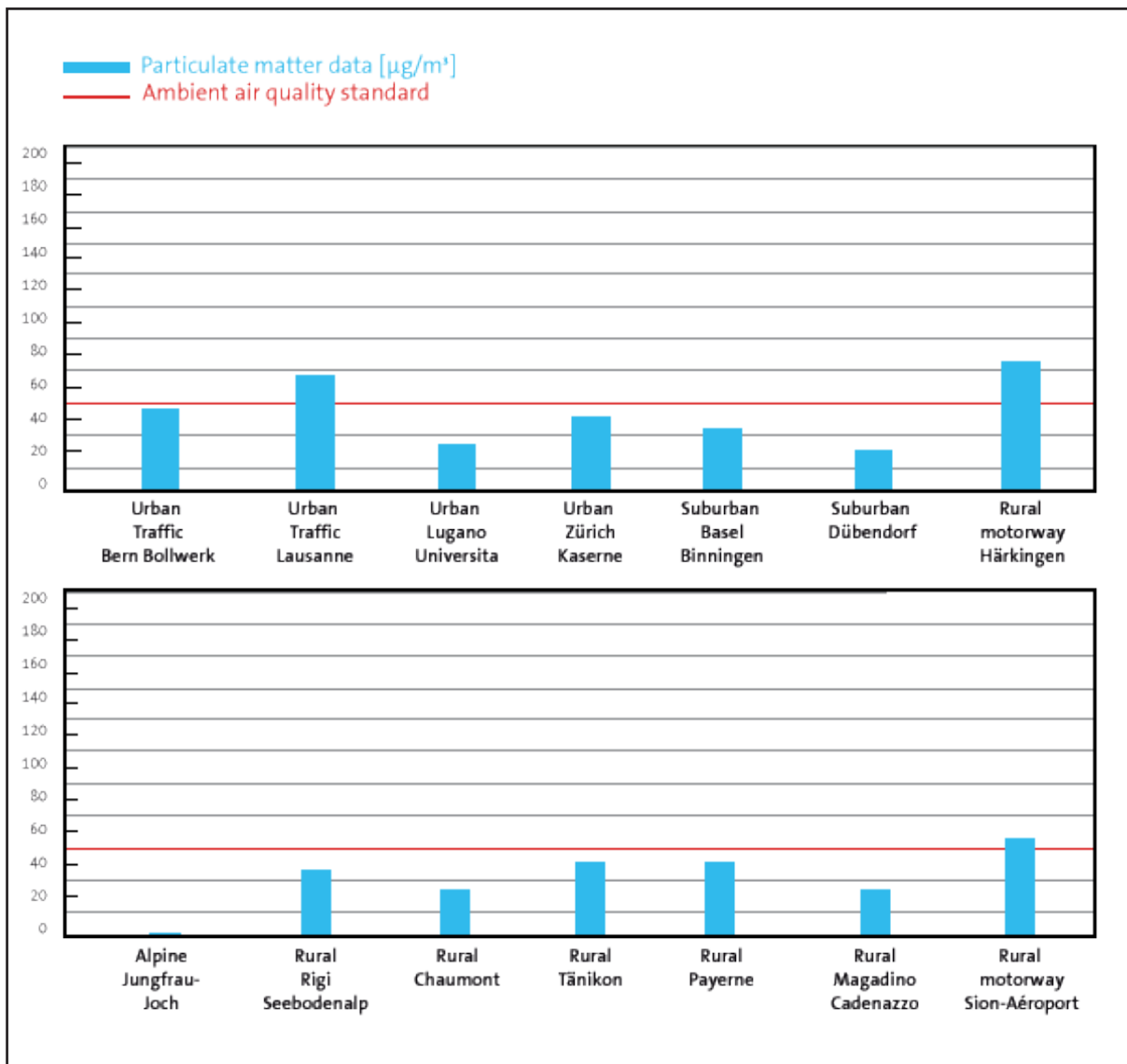
As mentioned, the Swiss Federal Office of Meteorology and Climatology is offering some services for pollen flight concerned people. There is no mobile application available. Data can be obtained via email or sms.

The services which Meteo Schweiz offers are partial expensive. They are not all meant for common patients but for organisations, media or doctors who are able to invest arround 5000 or 6000 Swiss Francs each season.



BLUE POINTS ARE REPRESENTING METERING STATIONS. THEY ARE ALLOTTED ALL OVER THE COUNTRY.

The Department of the Environment, Transport, Energy and Communications (BAFU)⁰⁹ is responsible to supply data of air quality basically chemical substances like ozone, nitrogen dioxide, particulate matter a.s.o. These informations are made available to public and private-sector customers.



AIR QUALITY IN DIFFERENT AREAS OF SWITZERLAND. THE RED LINE IS SYMBOLIZING THE DESIGN LIMIT AND AMBIENT AIR QUALITY STANDARD..

The Department of the Environment, Transport, Energy and Communications (BAFU)⁰⁹ is responsible to supply data of air quality basically chemical substances like ozone, nitrogen dioxide, particulate matter a.s.o. These informations are made available to public and private-sector customers.

This is an example of Particulate matter data. The image shows different locations allotted all over the country. mainly in the midland and Ticino. The red line is symbolizing the design limit.

CONTEXT INQUIRY

3.2

CONCLUSION

Before the context inquiry i knew nothing about pulmonary disease. The Tals gave me an good overview to the difficulty of the matter. I was most interested in the way people with pulmonary diseases are living with their issue. How they handle things or how they changed their habits during the affliction. I've been told alot of times that information is the most important thing. I also spoke with them about special services. The question was; what would they consider as useful. Of course, not all have the same needs but i think i had enough insights which i can use for further developement of an solution.

CONTEXT INQUIRY

3.1

RESOURCES

⁰¹ http://www.pollenundallergie.ch/index.cfm?parents_id=1934

⁰² http://www.meteosuisse.admin.ch/web/de/klima/berichte_und_publicationen/2008_und_die_klimaerwaermung.html

⁰³ <http://incom.org/action/download-file/46812/PROBES2004.pdf>

⁰⁴ <http://www.weatherpro.de/de/home.html>

⁰⁵ <https://shop.meteoswiss.ch/productView.html?type=psc&id=17>

⁰⁶ <http://en.wikipedia.org/wiki/Ozone>

⁰⁷ <http://www.zhd.ch/>

⁰⁸ <http://www.meteosuisse.admin.ch/web/fr/meteo.html>

⁰⁹ <http://www.bafu.admin.ch/org/09606/index.html?lang=de>