



**Aerobiological Information Systems and allergic
respiratory disease management AIS LIFE**
(AIS LIFE LIFE13 ENV/IT/001107)

The Second Annual meeting, Paris, France
18-19th of January 2017

Actions progress

Medical University of Vienna
Research Group Aerobiology and Pollen Information
Department of Oto-Rhino-Laryngology

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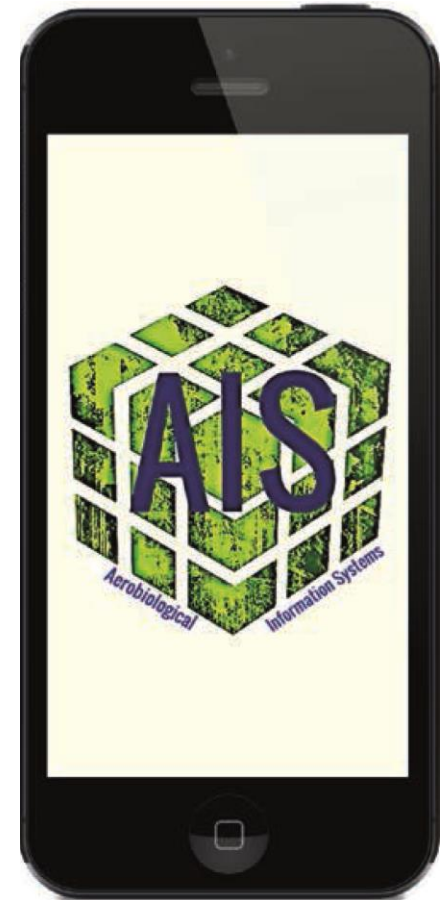
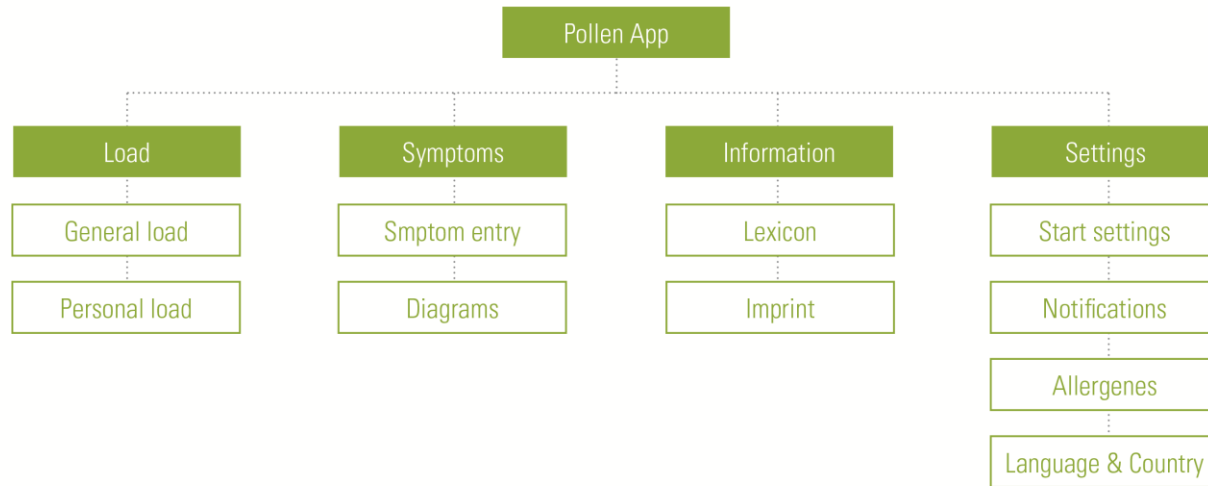


MUW Actions in Project

- Action A1: Set up of an Integrated Information System (IIS) in 3 countries (France, Italy, Austria)
- **Action A2: Set up of an enhanced personalized Pollen Information system (PPI) in France and Italy, in combination with an in depth QOL survey (main responsibility MUW)**
- Action B1: Implementation of IIS and PPI in three countries (enrolment, randomisation, educational intervention)
- Action B2: Health assessment of Allergy Patients
- **Action C1: Monitoring of the long-term implementation of Aerobiological Information Systems (main responsibility MUW)**
- Action C2: Validation and comparison of the effectiveness of the two Aerobiological Information Systems
- Action D3: Stakeholder Involvement Activities
- Action D4: Target Audience / General Public Awareness Raising
- Action E1: Overall project operation

Action A2: Set up of an enhanced personalized Pollen Information system (PPI) in France and Italy - FINISHED

Deliverable A2.1: The concept of start screen and the architecture of the app



Links:

iOS: <https://www.eigenart.co.at/ios/pollen-ais-1/>

Android: https://www.eigenart.co.at/android/pollen-ais-1/ais_life_plus_1.apk

Action C1: Monitoring of the long-term implementation of Aerobiological Information Systems

Update:

1. Pollen data from Pisa, Lyon, Paris and Vienna are regularly collected and stored in EAN database
2. The meteorological and pollution data are also regularly collected
3. The measurement of ultrafine particles was conducted two times (winter and spring)
4. Collecting of data necessary for evaluation and improving the developed services of the Aerobiological Information Systems.

The system measure:

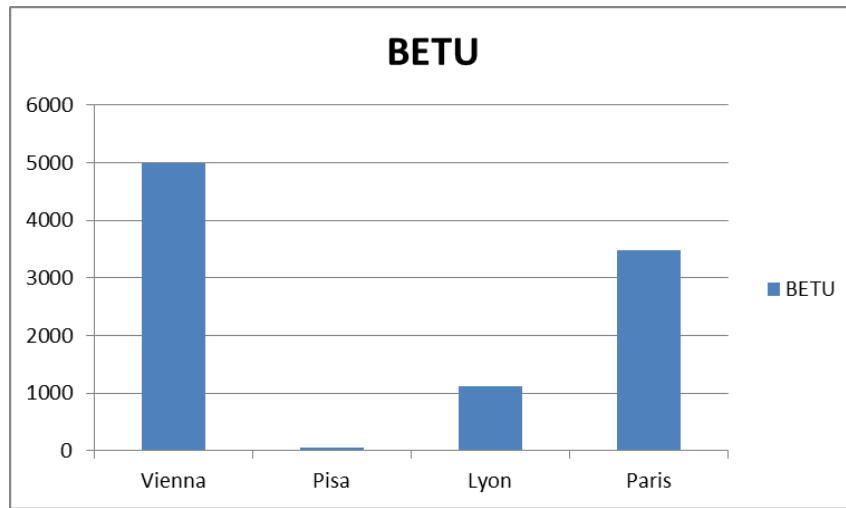
- user acceptance - user perception
- improvement of the quality of life (QoL) of users
- decrease of symptoms load
- decrease of socio-economical costs of users
- increase in knowledge about the effect of the interaction between pollen and chemical pollutants on allergies
- reduction in energy consumption / emissions thanks to reduced medication use
- reduction in water consumption



The measurement of ultrafine particles in Vienna.

Betula

2015



2016

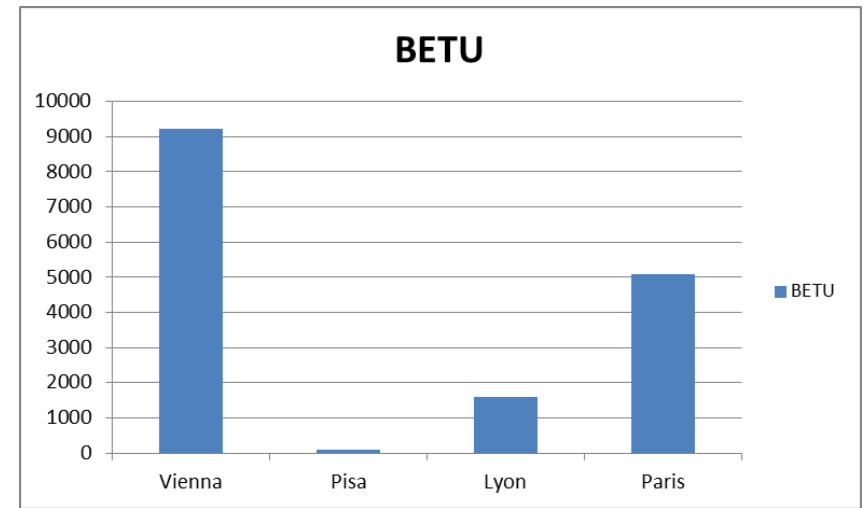
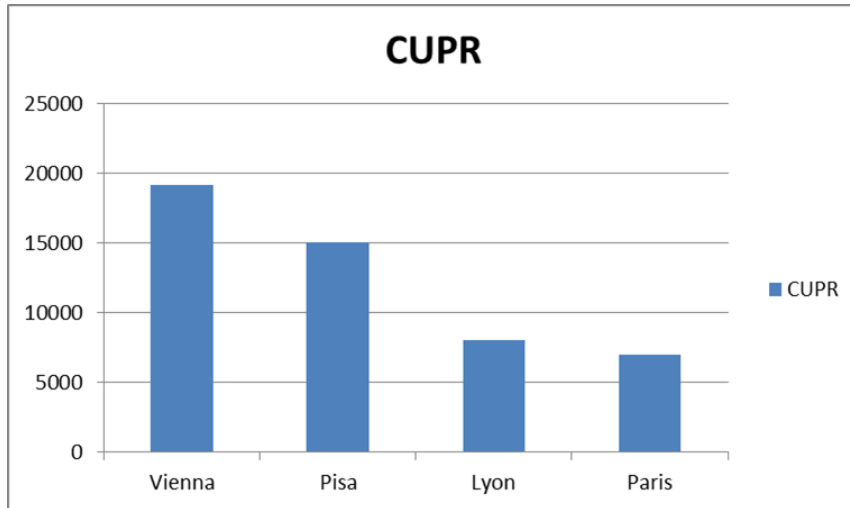


Figure 2. Seasonal Pollen Index of *Betula* in Vienna, Pisa, Lyon and Paris (2015 and 2016).

- More pollen in 2016

Cupressaceae/Taxaceae

2015



2016

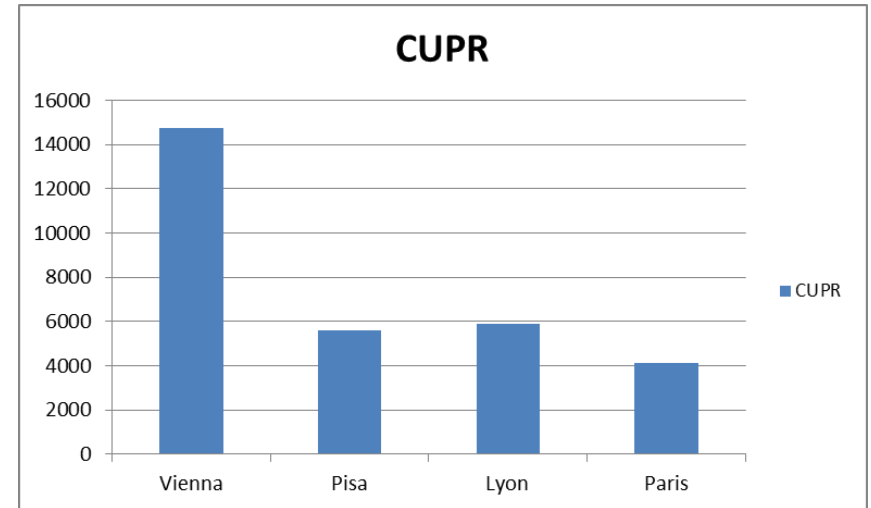


Figure 3. Seasonal Pollen Index of *Cupressaceae/Taxaceae* in Vienna, Pisa, Lyon and Paris (2015 and 2016).

- Less pollen in 2016

Poaceae

2015

2016

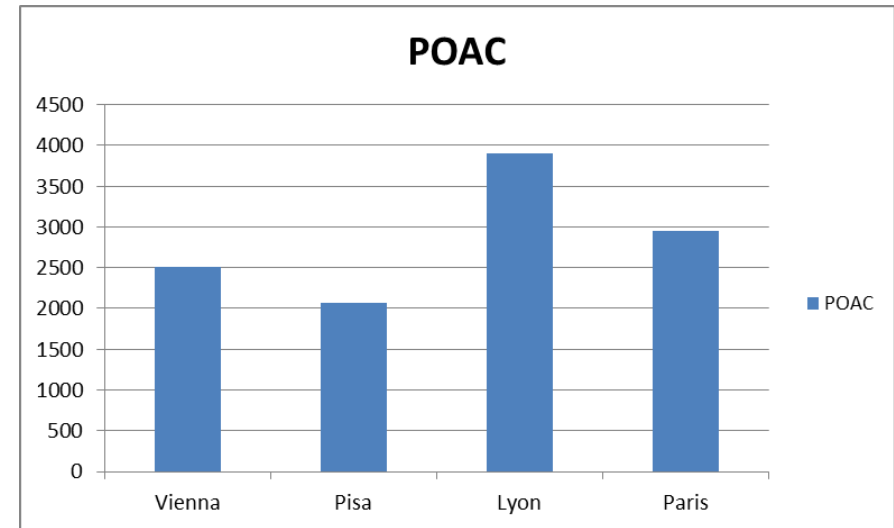
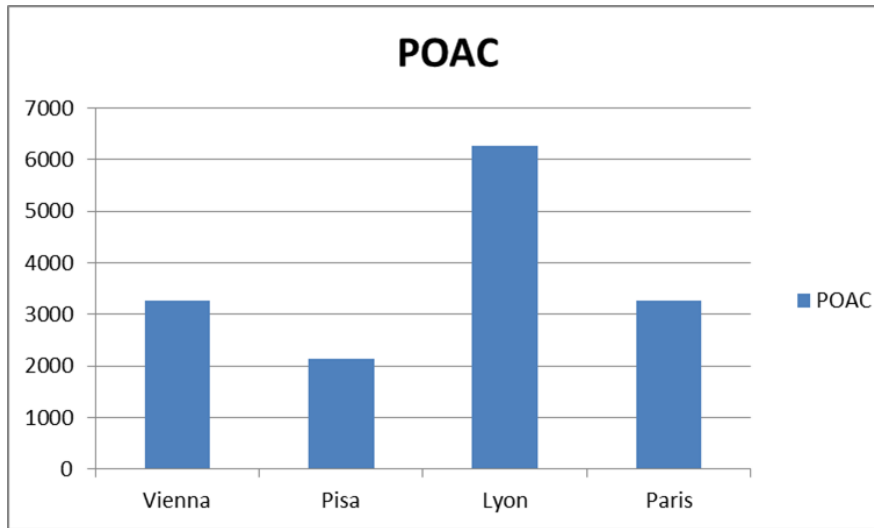
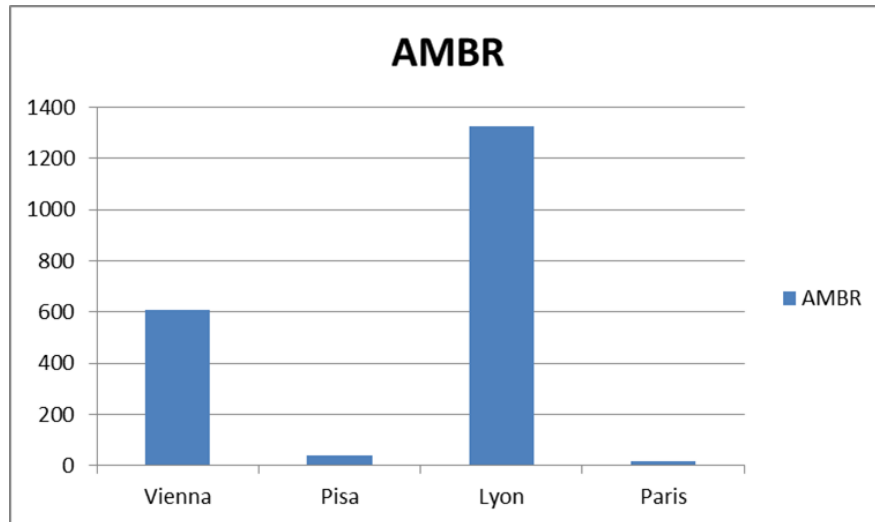


Figure 3. Seasonal Pollen Index of *Poaceae* in Vienna, Pisa, Lyon and Paris (2015 and 2016).

- Similar seasons, but concentrations were lower in 2015

Ambrosia

2015



2016

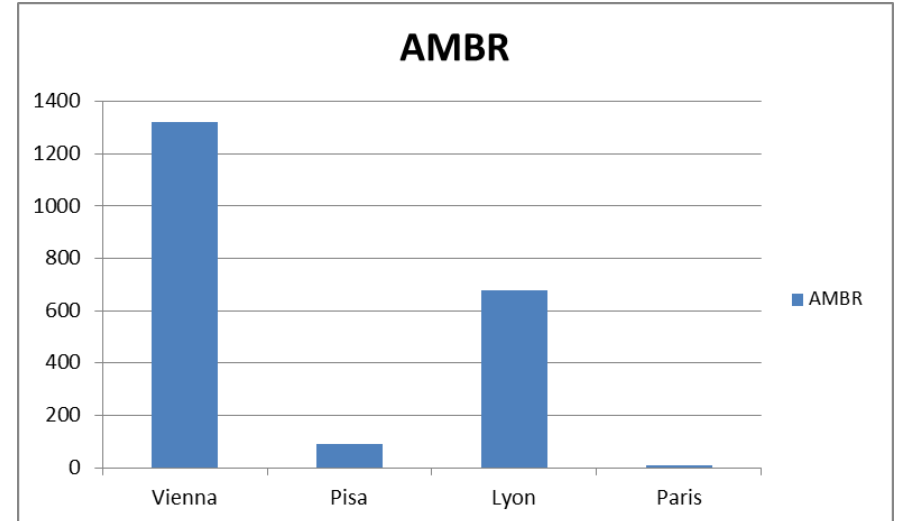


Figure 3. Seasonal Pollen Index of *Ambrosia* in Vienna, Pisa, Lyon and Paris (2015 and 2016).

- Very intensive season in Vienna 2016
- In Lyon was total opposite

Action C1: Monitoring of the long-term implementation of Aerobiological Information Systems

User acceptance and perception

- User acceptance and perception to the Aerobiological Information Systems is monitored by use of visitor tracking tool called PIWIK, and AIS homepage by Google Analytics.
- Last update: **16th of January 2017**

1. Number of accesses to online Aerobiological Information Systems and amount of time spent on pages (Table 1).

Table 1. Number of accesses to online Aerobiological Information Systems and amount of time spent on pages (all regions).

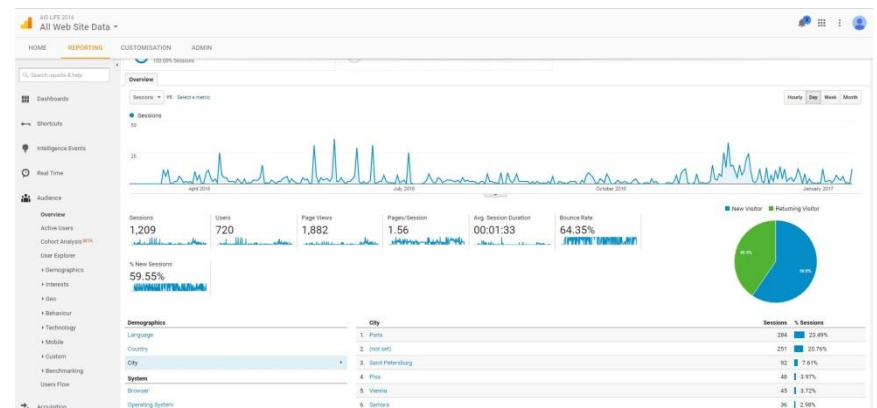
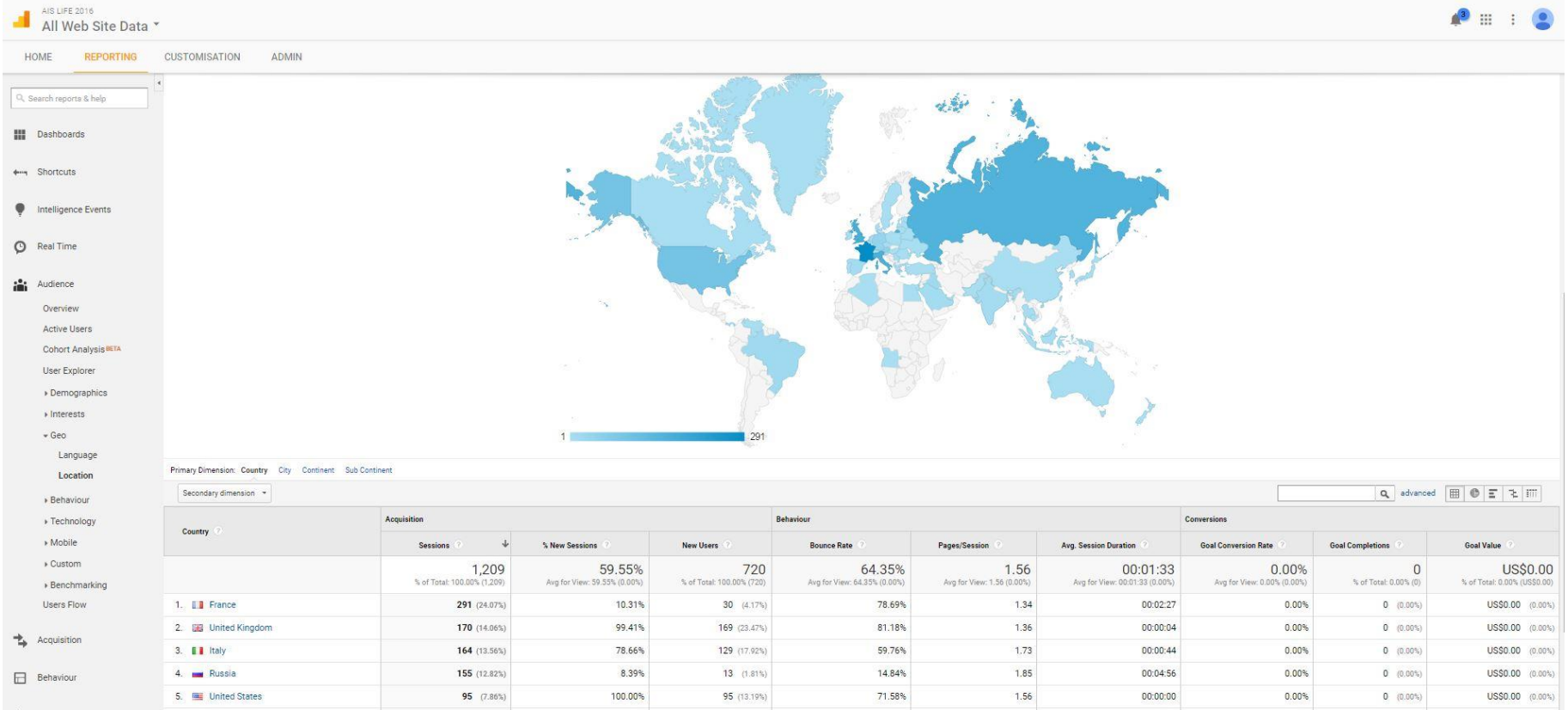
Date	Visits	unique Visitors	Page views	avg. Time spent
Sep-15	1	1	8	00:01:23
Oct-15	34	17	1483	00:32:07
Nov-15	25	8	897	00:25:02
Dec-15	8	2	136	00:20:50
Jan-16	0	0	0	00:00:00
Feb-16	18	10	1405	00:36:15
Mar-16	20	6	1012	00:31:26
Apr-16	12	6	158	00:04:29
May-16	7	4	170	00:03:18
Jun-16	17	5	178	00:02:13
Jul-16	7	3	82	00:02:44
Aug-16	0	0	0	00:00:00
Sep-16	3	1	22	00:00:38
Oct-16	5	3	46	00:01:29
Nov-16	10	5	166	00:03:54
Dec-16	35	11	553	00:07:24
Jän.17	19	5	177	00:01:35
TOTAL	221	87	6493	02:54:47

In total, number of visits of the AIS App in all countries was 221, with 87 unique visitors. AIS App pages were viewed 6493 times in total and total time were 2 hours 54 minutes and 47 second.

The region with the largest number of visits was Vienna, but considering countries, 103 visits were from Italy.

Table 2. Number of visits per region/country.

Region	No of visits	Country	No of visits
- unknown -	89	Austria	69
Toscana, Italy	35	France	11
Upper Austria, Austria	1	Germany	1
Vienna, Austria	62	Italy	103
Calabria, Italy	2	United Kingdom	15
Lombardia, Italy	3	United States	1
Campania, Italy	1	Czech Republic	2
Lazio, Italy	1	Austria	69
Puglia, Italy	1		
Sicilia, Italy	1		
Trentino-Alto Adige, Italy	1		
Umbria, Italy	3		
Liguria, Italy	1		
Ile-de-France, France	1		
TOTAL	202	TOTAL	202



Evaluation of the AIS homepage by Google Analytics

3. Number of accesses to the AIS homepage and amount of time spent on pages (Table 3).

Table 3. Number of accesses to AIS homepage and amount of time spent on pages (all regions).

Date	Visits	unique Visitors	Page views	avg. Time spent
Mar-16	62	28	88	00:03:04
Apr-16	130	70	179	00:02:28
May-16	144	114	167	00:00:47
Jun-16	120	86	132	00:00:57
Jul-16	90	76	91	00:00:02
Aug-16	69	68	115	00:00:01
Sep-16	74	37	95	00:02:28
Oct-16	38	30	54	00:00:04
Nov-16	250	126	526	00:02:28
Dec-16	174	111	350	00:01:38
Jan-17	58	27	85	00:00:45
TOTAL	1209	773	1882	00:14:42

The AIS homepage was visited 1209 times by 773 visitors. It was viewed 1882 pages.

AIS homepage was visited the more frequently from France. Number of visits from Italy was 164 and from Austria 47.

Table 4. Number of visits of AIS homepage per country/city.

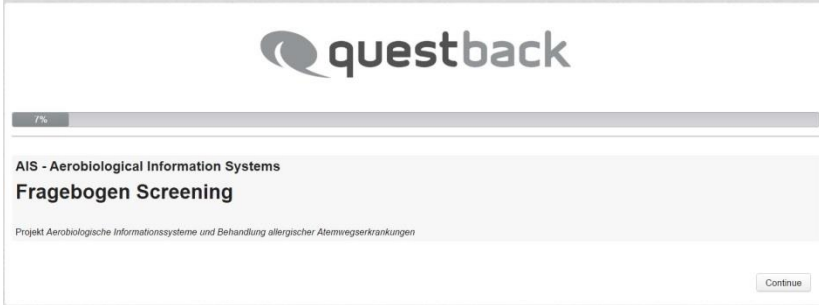
Country	No of visits	City	No of visits
France	291	Paris	284
United Kingdom	170	(not set)	251
Italy	164	Saint Petersburg	92
Russia	155	Pisa	48
United States	95	Vienna	45
(not set)	67	Samara	36
Austria	47	Rome	32
Germany	35	Milan	20
Brasil	19	London	16
Iraq	18	Lucca	16
all other	148	all other	369
TOTAL	1209	TOTAL	1209

Action B1: Implementation of IIS and PPI in three countries (enrolment, randomisation, educational intervention)

Austria: Online Screening and Health questionnaires

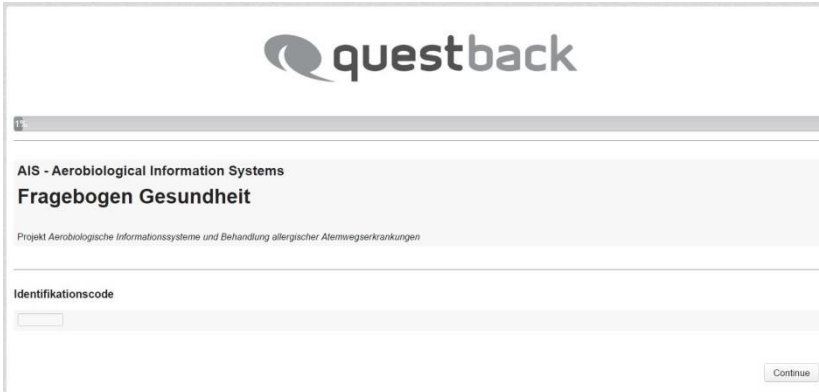
Total number of subjects – **380**

- 224 of them can not be involved in AIS
- 156 of them can be involved in AIS



The screenshot shows the Questback logo at the top. Below it is a progress bar at 7%. The main title is 'AIS - Aerobiological Information Systems Fragebogen Screening'. Below the title is a subtitle: 'Projekt Aerobiologische Informationssysteme und Behandlung allergischer Atemwegserkrankungen'. At the bottom right is a 'Continue' button.

[http://ww3.unipark.de/uc/bergermba Medizinische Universit/89df](http://ww3.unipark.de/uc/bergermba_Medizinische_Universit/89df)



The screenshot shows the Questback logo at the top. Below it is a progress bar at 1%. The main title is 'AIS - Aerobiological Information Systems Fragebogen Gesundheit'. Below the title is a subtitle: 'Projekt Aerobiologische Informationssysteme und Behandlung allergischer Atemwegserkrankungen'. Below the subtitle is a label 'Identifikationscode' followed by a text input field. At the bottom right is a 'Continue' button.

[http://ww3.unipark.de/uc/bergermba Medizinische Universit/3b41](http://ww3.unipark.de/uc/bergermba_Medizinische_Universit/3b41)

Situation in Austria

Participants	Austria
group A	79
group B	70
group C	7
Total participants	156

**STUDENTEILNEHMER FÜR POLLENALLERGIE-STUDIE GESUCHT**

Haben Sie Pollenallergie oder kennen Sie jemanden, der Pollenallergie hat?

Wenn Sie an einer Pollenallergie leiden, bitte nehmen Sie beim AIS Life+ Projekt teil!

Voraussetzungen:

- Pollenallergie
- Älter als 18 Jahre
- Keine Immuntherapie

Das AIS Life+ Projekt ist eine europäische Aufklärungskampagne für Patienten. Das AIS LIFE schärft das Bewusstsein der Zielgruppen über mögliche gesundheitliche Auswirkungen der Umweltverschmutzung und Pollenbelastung und ermöglicht den Betroffenen vorbeugende Maßnahmen zu ergreifen. Es ermöglicht Allergikern die Konzentrationen von Luftschadstoffen und Pollenkonzentrationen im Voraus zu wissen und medikamentöse Vorsichtsmaßnahmen zu setzen, um die Nebenwirkungen und Kosten für den Patienten zu senken.

Melden Sie sich unter: ais@pollenwarndienst.at

ODER online: http://ww3.unipark.de/uc/bergermba_Medizinische_Universit/89df

Vielen Dank für Ihre Mithilfe!
AJS Life Team

Additional efforts - in progress:

- Cooperation with general practitioners and clinical attenders
- Directly contact students
- Dissemination among other medical FB groups
- New: leaflets for enrolment with defined criteria

[illegible]

Action D: COMMUNICATION ACTIONS

Stakeholder Involvement Activities and Target Audience / General Public Awareness Raising



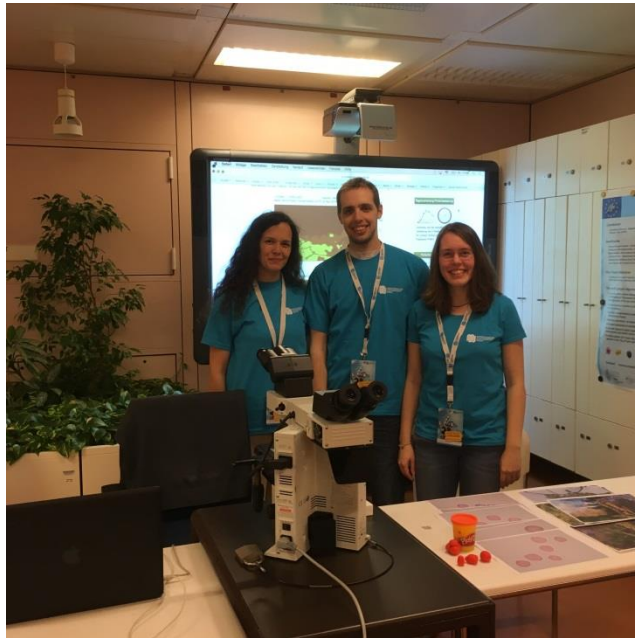
11th of October 2015: Austrian Aerobiology Meeting,
Graz, Austria



17th of March 2016: Press conference of the Austrian
pollen information service, Vienna, Austria

Action D: COMMUNICATION ACTIONS

Stakeholder Involvement Activities and Target Audience / General Public Awareness Raising



24th of April 2016: Long Night of Research, Vienna, Austria



11-15 June 2016: EAACI 2016, Vienna, Austria

Action D: COMMUNICATION ACTIONS

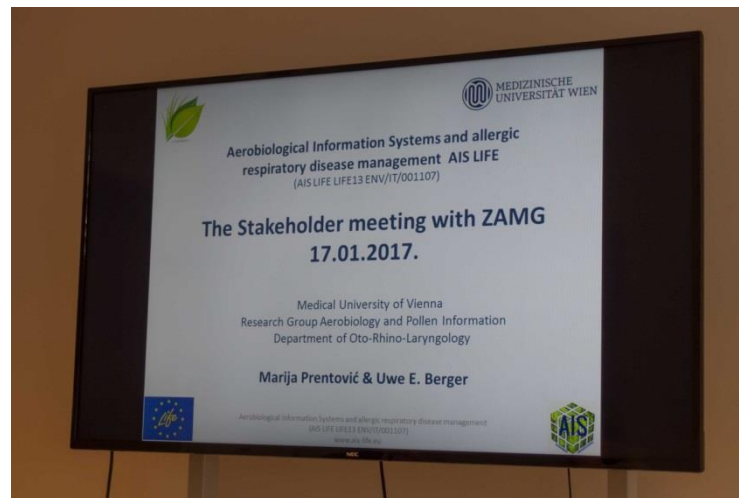
Stakeholder Involvement Activities and Target Audience / General Public Awareness Raising



15-16th of October 2016: Austrian Aerobiology Meeting, Illmitz, Austria

Action D: COMMUNICATION ACTIONS

Stakeholder Involvement Activities and Target Audience / General Public Awareness Raising



17th of January 2017 - The stakeholder meeting with the Austrian weather service

Next steps:

1. The continuation of monitoring: pollen, pollutants and weather data
2. The completion of subjects enrolment and educational activities of subjects
3. The relationship between data - pollen, pollutants and weather data with symptom data
4. The continuation of collecting of data necessary for evaluation and improving the developed services of the Aerobiological Information Systems.



Thank you for your attention!

