



UFIREG

Ultrafine particles –
cooperation with environ-
mental and health policy

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TOPIC 1/TEMA 1

3RD PROJECT PARTNER MEETING/3. SESTANEK PROJEKTHNIH PARTNERJEV

On 2nd July 2012 the 3rd project partner meeting took place on the site of the Helmholtz Centre Munich, German Research Centre for Environmental Health. Twice a year representatives of all partner institutions meet to discuss progress and current developments within the project and to jointly define the next steps.

A review of the last six months highlights the key milestones, which have been reached during the project duration so far:

✓ Hamburg and Leipzig were gained as partner cities of the project.

2. julija je v prostorih Helmholtz Centra München, nemškega raziskovalnega centra za okoljsko zdravje, potekal 3. sestanek projektnih partnerjev. Dvakrat letno se predstavniki vseh partnerskih institucij sestanejo, da razpravljajo o napredku in trenutnem razvoju dogodkov ter skupaj določajo nadaljnje korake.

Pregled zadnjih šestih mesecev je pokazal, da so bili doseženi pomembni mejniki:

✓ Mesti Hamburg in Leipzig sta postali partnerski mesti projekta.

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- ✓ The Stakeholder Panel has been extended continuously by international contacts.
- ✓ The UFP-Measurement in Augsburg, Prag and Ljubljana started successfully. In Dresden ultrafine particles (UFP) have already been measured since the beginning of the project. The measurements in Chernivtsi, Ukraine, will start in autumn this year.
- ✓ Joint reports were finalized concerning
 - ✓ The current state of research regarding the impact of UFP on human health.
 - ✓ The availability, the format and the comparability of air pollution, meteorological, epidemiological and socio-demographic data in Germany, Czech Republic, Slovenia and Ukraine.
 - ✓ The transfer, harmonization and analysis of the available and the collected data.
 - ✓ The installation of the UFP-measurement system and the training of the responsible staff on site.
- ✓ Interessna skupina se je kontinuirano širila s pridobivanjem novih mednarodnih kontaktov.
- ✓ Uspešno so se začele izvajati meritve ultrafinih prašnih delcev v Augsburgu, Pragi in Ljubljani. V Dresdnu se meritve izvajajo že od začetka projekta, v Černivcih, Ukrajina pa bodo z meritvami začeli letos jeseni.
- ✓ Dokončana so bila skupna poročila o
 - ✓ trenutnem stanju raziskav o vplivu ultrafinih prašnih delcev na zdravje ljudi;
 - ✓ razpoložljivosti, formatu in primerljivosti podatkov o onesnaženju zraka, meteoroloških, epidemioloških in socioloških podatkov v Nemčiji, Češki, Sloveniji in Ukrajini;
 - ✓ prenos, usklajevanje in analiza razpoložljivih in pridobljenih podatkov;
 - ✓ namestitvev merilnega sistema za merjenje ultrafinih delcev ter usposabljanje odgovornih oseb za merjenje ultrafinih delcev na terenu.

Abbildung 1: Projektpartner gemeinsam mit externen Experten



The discussion of the current project developments gave an insight into first results of UFP-measurements. These showed, amongst others, a significant increase in UFP-concentration during the May fire night on 30th April 2012 (current press release on this see: <http://www.ufireg-central.eu> → News). Not only the fitting accuracy of the diverse statistical methods for the analysis of the UFP-data (temporal and spatial variation) but also the investigation of the impact of UFP on the morbidity and mortality rate was jointly discussed. A common data base provides the basis for future data analysis together for all study areas. The status quo of the data base development was another key issue during the 3rd project partner meeting.

Med razpravo o aktualnih dogodkih v okviru projekta so bili prikazani tudi prvi rezultati meritev ultrafinih prašnih delcev, ki so med drugim pokazali znatno povečanje ultrafinih prašnih delcev v noči 30. aprila 2012, ko potekajo kresovanja (sporočilo za javnost: <http://www.ufireg-central.eu> → News). Poleg tega se je razpravljalo o primernosti različnih statističnih metod za analizo podatkov o ultrafinih prašnih delcih (časovna in prostorska variacija) ter o preiskovanju vpliva ultrafinih prašnih delcev na obolevnost in umrljivost. Skupna podatkovna baza je osnova za nadaljnje analize podatkov za vse študijske skupine, zato je bilo trenutno stanje razvoja skupne podatkovne baze tudi ena izmed tem tretjega sestanka projektnih partnerjev.

The UFIREG project is accompanied by two workgroups: an exposure workgroup, which deals with the measurement of the ultrafine particles, and an epidemiological workgroup, which focuses on project relevant health issues. Both workgroups consist of representatives of the project partners as well as external experts.

The next meeting of project partners, stakeholders and the two work groups will take place at the beginning of next year in Celje, Slovenia.

Projekt UFIREG spremljata tudi dve delovni skupini: delovna skupina za izpostavljenost, ki se ukvarja z meritvami ultrafinih prašnih delcev, ter epidemiološka skupina, ki se osredotoča na zdravstvena vprašanja, ki ustrezajo projektu. Obe delovni skupini sta sestavljeni iz predstavnikov projektnih partnerjev in zunanjih strokovnjakov.

Naslednji sestanek partnerjev, interesne skupine ter obeh delovnih skupin bo v začetku naslednjega leta v Celju, Slovenija.

TOPIC 2 / TEMA 2

EXCHANGE WITH POLICY, SCIENCE AND POPULATION: INSIGHTS INTO THE PROJECTS' PUBLIC RELATIONS/
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TU Dresden, Research Association Public Health: Symposium „Healthy Urban Planning“

The annual members' meeting of the "Healthy Cities" network of Germany and the Symposium "Healthy Urban Planning" took place from 13th to 15th June 2012. Within the scope of the workshop "Healthy Climate" on 14th June 2012 Madlen Arnhold, research assistant at the Research Association Public Health, introduced contents and long-term-objectives of the UFIREG-project and gave an insight into the current state of research concerning the health impact of ultrafine particles. Subsequently, innovative approaches for minimizing air pollution and the consequences of climate change were discussed together with representatives of other German municipalities.

Saxon State Agency for Environment, Agriculture and Geology: 16. ETH-Conference on Combustion Generated Nanoparticles

Representatives of emission protection, air quality control, automotive industry, manufacturers of particle filter and particle counting instruments as well as researchers of various disciplines met at the Swiss Federal Institute of Technology Zurich from 24th to 27th June 2012 to discuss the following topics: determination of particle emission, measures and methods to reduce particle emission, impact of ultrafine particles on health and existing as well as possible implementation

TU Dresden, Raziskovalno združenje javno zdravje: Simpozij „Zdravo urbanistično načrtovanje“

Med 13. in 15.06.2012 se je v Dresdnu odvijalo letno srečanje članov nemške mreže „Zdrava mesta" in Simpozij „Zdravo urbanistično načrtovanje". V okviru delavnice "Zdrava klima", 14.06.2012, je Madlen Arnhold, asistentka na Raziskovalnem združenju javno zdravje, predstavila vsebino in dolgoročne cilje projekta UFIREG ter podala vpogled v trenutno stanje raziskav o vplivu ultrafinih delcev na zdravje ljudi. Nato je sledila razprava s predstavniki drugih nemških občin o inovativnih pristopih za zmanjševanje onesnaževanja zraka in o vplivih podnebnih sprememb.

Saška državna agencija za okolje, kmetijstvo in geologijo: 16. ETH-Konferenca o „Nanodelcih iz procesov izgorevanja“

Med 24. in 27. junijem so se, na Švicarskem zveznem inštitutu za tehnologijo (ETH-Zürich), sestali predstavniki organov za zaščito pred emisijami, nadzor kakovosti zraka, avtomobilske industrije, proizvajalcev filtrov in merilnih instrumentov za štetje delcev, kot tudi raziskovalci različnih strokovnih smeri in razpravljali o naslednjih temah: merjenje emisij delcev, ukrepi in metode za zmanjševanje emisij delcev, vplivi ultrafinih delcev na zdravje ljudi kot tudi zakonodaja in izvajanje

of regulations concerning ultrafine particles.

Within the scope of this conference the UFIREG-project was presented by a poster during the poster session "Health".

The discussions during the Focus Event "How to regulate Nanoparticles?" covered exactly the topics and objectives of the UFIREG-project. The practicality and relevance of new air quality standards regulating ultrafine particles were debated with special regard to findings of epidemiological studies which has been performed so far. Due to the ambiguous results of these studies it was pointed out that projects such as UFIREG with comparable measurements at the same time at different places are strongly needed to draw conclusions concerning health effects of ambient ultrafine particles.

Institute of Experimental Medicine AS CR: Public Debate on air quality in Mlada Boleslav

Impulse for convening a public debate on the air quality in the city of Mlada Boleslav was the deteriorating local air quality. The major concern of the debate on 22th March 2012 was the role of traffic and local heating for the increasing level of PM10. Within this context Dr. Dostál from the Institute of Experimental Medicine AS CR in Prague presented the contents and long-term objectives of the UFIREG-project.

Further members of the panel were:

- *Dr. E. Rychlíková*: Health Institute in Ústí nad Labem
- *Ing. J. Topinka*: Institute of Experimental Medicine in Prague
- *Ing. M. Vojtíšek*: Technical University of Liberec
- *Ing. J. Velíšek*: Technical Service of Environment protection
- *Ing. J. Bouška*: Deputy Mayor for Environment
- *Mgr. Hradisky*: Initiator and host of the discussion

obstojećih in bodoćih predpisov.

V okviru te konference je bil projekt UFIREG predstavljen med predstavitvijo posterjev na temo "Zdravje".

Razprava med osrednjim dogodkom „How to regulate Nano-particles?“ je zajela ravno teme in raziskovalni cilj projekta UFIREG. Razpravljalo se je o praktičnosti in pomenu novih standardov kakovosti zraka, ki bi urejali ultrafine delce, s posebnim poudarkom na rezultatih epidemioloških študij, ki so bile opravljene doslej. Zaradi dvoumnih rezultatih teh študij je bilo poudarjeno, da so projekti, kot je UFIREG, ki izvajajo primerljive meritve ob istem času na različnih lokacijah zelo potrebni, da se lahko oblikujejo sklepi glede ultrafinih delcev in njihovega vpliva na človeško zdravje.

Inštitut za eksperimentalno medicino, Češka: javna razprava o kakovosti zraka v mestu Mlada Boleslav

Povod za organizacijo javne razprave o kakovosti zraka v mestu Mlada Boleslav je bila vedno slabša lokalna kakovost zraka. Glavna skrb razprave, ki se je odvijala 22. marca 2012, je bil vpliv prometa in lokalnega ogrevanja na povečano raven delcev PM10. V tem kontekstu je Dr. Dostál, iz Inštituta za eksperimentalno medicino Praga, predstavil vsebino in dolgoročne cilje projekta UFIREG.

Ostali udeleženci javne razprave so bili:

- *Dr. E. Rychlíková*: Inštitut za zdravje Ústí nad Labem
- *Ing. J. Topinka*: Inštituta za eksperimentalno medicino Praga
- *Ing. M. Vojtíšek*: Tehnična univerza Liberec
- *Ing. J. Velíšek*: Tehnična služba za varstvo okolja
- *Ing. J. Bouška*: Vodja oddelka za okolje
- *Mgr. Hradisky*: Pobudnik in moderator javne razprave

Science Café in Prague

Science Café implies a concept, which aims at promoting science based knowledge by discussions of scientists with the public in an informal atmosphere. The Prague Science Café on 19th April 2012 offered a debate on the effects of a polluted environment on human health together with Dr. Dostál and Dr. Sram, Institute of Experimental Medicine AS CR in Prague.

Besides introducing the project UFIREG Dr. Dostál presented the results of the recent “Program Ostrava” consisting of the projects AIRGEN and AIRTOX. Both projects aimed at evaluating health effects of polluted environment in the city of Ostrava. The results documented an extremely high morbidity (pneumonia, tonsillitis, intestinal infections, allergies) of preschool children.

L.I. Medved's Institute of Ecohygiene and Toxicology: 3rd Congress of the Association of Toxicologists of Ukraine

On 18th December 2011 the third Congress of the Association of Toxicologists of Ukraine on the topic “Recent developments in toxicology. Food security and human environment” took place in Kiev. During the conference B. Mykhalchuk presented a poster, which illustrated the challenge of integrating the Ukraine into the European wide air quality monitoring network caused by differences of legislation in the field of environmental protection.

The main idea was that the usage of different methods of measurements and performance rating hamper the comparison of monitoring results.

Furthermore B. Mykhalchuk and T. Kolodnitska presented posters illustrating the current knowledge on the impact of UFP on human health and the methods of measuring UFP planned to use within the UFIREG-project.

For further information on the project's objectives, please refer to our previous newsletters or visit the project website www.ufireg-central.eu.

Znanstvena kavarna v Pragi

Koncept znanstvene kavarne je nastal iz ideje, da bi znanstveniki z javnostjo razpravljali o znanstvenih ugotovitvah v neformalnem ozračju. Znanstvena kavarna v Pragi je 19. aprila 2012 ponudila priložnost diskusije z Dr. Dostálom in dr. Sramom iz Inštituta za eksperimentalno medicino Praga o vplivu onesnaženega okolja na zdravje ljudi.

Poleg predstavitve projekta UFIREG je Dr. Dostál predstavil tudi nedavne rezultate “Programa Ostrava”, ki sestoji iz projektov AIRGEN in AIRTOX. Cilj obeh projektov je bil oceniti zdravstvene posledice onesnaženega okolja v mestu Ostrava. Rezultati so pokazali izjemno visoko obolenost (pljučnica, angina, črevesne okužbe, alergije) predšolskih otrok.

L.I. Medvedov Inštitut za okoljsko zdravje in toksikologijo: 3. Kongres ukrajinskega Združenja za toksikologijo

18. decembra 2011 je v Kijevu potekal tretji kongres ukrajinskega Združenja za toksikologijo na temo “Nedavni dogodki v toksikologiji. Varnost hrane in življenjskega okolja”. Med konferenco je B. Mykhalchuk predstavil plakat na katere je bil prikazani izziv vključevanju Ukrajine v Vseevropsko mrežo za spremljanje kakovosti zraka zaradi razlik v zakonodaji, ki ureja področje varstva okolja.

Hkrati pa se je razpravljalo o uporabi različnih metod in sistemov ocenjevanja in posledično težje primerljivosti rezultatov opravljenih meritev.

Poleg tega plakata sta B. Mykhalchuk in Kolodnitska pripravila tudi dva plakata, ki sta ponazarjala trenutno znanje o vplivih ultrafinih delcev na človeško zdravje in načrtovane metode merjenja ultrafinih delcev, ki se bodo uporabljale v okviru projekta UFIREG.

Dodatne informacije o vsebini projekta, so vam na voljo v naših prejšnjih glasilih, kot tudi na spletni strani projekta www.ufireg-central.eu.

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