Innovative Training Networks (ITN)
H2020-MSCA-ITN-2015/675530

ITN Best Practices

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ANSWER project
H2020-MSCA-ITN-2015/675530

ANTibioticS and mobile resistance elements in WastEWater Reuse applications: risks and innovative solutions

10 Beneficiaries and 8 Partner Organizations

6 Universities
5 Research Centers
7 Private/Industrial Entities

from
9 Countries
WPs and Training Areas

WP1: Spread and transmission of A&ARB&ARG under reuse scenarios
- Chemical Tools
- Microbiological Tools
- Modelling Tools

WP2: Evaluation of A&ARB&ARG effects and hazard identification
- Chemical Tools
- Microbiological Tools
- Toxicological Testing
- Modelling Tools

WP3: Innovative technological solutions for the removal of A&ARB&ARG
- Process Engineering
- Chemical Tools
- Microbiological Tools
- Toxicological Testing
- Modelling Tools

WP4: A&ARB&ARG fate prediction through modelling approaches
- Modelling Tools
- Analytical Tools

WP5: Data management, prioritisation and policy guidelines development
- Management
- Prioritisation

WP7: Management

WP8: Communication and Dissemination

WP6: Training
To tackle the ITN complexity… implementation of best practices is of utmost importance

- Management structure
- Consortium Agreement
- Recruitment
- Transferable skills training
- Dissemination and Public Engagement
- Contacts and Synergies
- Tackling the scientific complexity of the ITN
Management Structure: How our network functions

Coordinator (CO)

Project Managers
- Scientific Manager
- Dissemination & Outreach Manager
- Financial & Administration Manager

Directors of Scientific Training (DST)

Directors of Research (DR)

Directors of Complementary Skills and Personal Career Development (DCS&PCD)

Supervisory Board
- All supervisors
- 1 representative from each beneficiary and partner
- DST, DR, EOEL, DCS&PCD Directors
- 2 representatives from ESRs

Equal Opportunities and Ethical Leader (EOEL)

Advisory Board
How the partnership cooperates in practice

► Physical meetings:
  ▪ All Beneficiaries every six months
  ▪ During the Training Events
  ▪ During various events/conferences

► Telephone and teleconference calls:
  ▪ When necessary

► Emails:
  ▶ Almost on a daily basis discussing:
    ▪ Scientific issues
    ▪ Dissemination issues
    ▪ Administrative issues
    ▪ Financial issues
  ▶ With the partners: When necessary for secondment arrangements

► Strong cooperation of partners beyond the ANSWER project:
  NEREUS COST Action ES1403, StARE Water JPI, NORMAN Network, etc.
The Consortium Agreement outlines the role and responsibilities of both Beneficiaries and Partners in our project.

It also tackles issues as redistribution of budget, conditions of access rights to background and foreground data, management structure, decision making, IPR issues, etc.
The recruitment strategy:

- strictly followed the **European Charter for Researchers** (The Code of Conduct for Recruitment of Researchers)

- This guaranteed worldwide access and a **fair** and **competitive selection** of fellows by the host institutions in accordance to **gender equality** and **minority rights**.
Our Recruitment Strategy

**Recruitment guidelines** were prepared by the **project coordinator** and distributed among the **beneficiaries**

**Establishment of three-member Selection/Evaluation Committees for each ESR position** (partners from **academic** and **non-academic sector**)

**Advertisements** of the open positions were prepared and distributed well in advance

**Skype interviews** and **face-to-face interviews** were used during the selection process (in various cases University committees were formed for the selection)
Eligibility Criteria

Name of Candidate:

<table>
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<tr>
<th>ESR position:</th>
<th>Eligibility Criteria</th>
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<tr>
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<td>Candidates are, at the time of recruitment by the host organization, in the first four years (full-time equivalent research experience) of their research careers and have not been awarded a doctoral degree</td>
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<td>Candidates have not resided or carried out their main activity (e.g. work, studies, etc.) in the country of their host organization for more than 12 months in the 3 years immediately prior to their recruitment</td>
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<td>Fluency in English language</td>
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<td>Satisfactory qualifications (scientific background and grades)</td>
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<td>Relevance of the scientific background of the applicants to the position</td>
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<td>Recommendation letters</td>
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<td>Previous relevant experience in reference to the ESR description as this appears in the ANSWER project Grant Agreement</td>
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<td>Published journal manuscripts (relevance, journal, number of publications, first author)</td>
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<td>General Comments:</td>
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The eligibility criteria of ANSWER ESRs, according to the rules of MSCA regarding ITN and the needs of the project were collected by the Coordinator and distributed among all project Beneficiaries in order to finalize them, and further proceed on the dissemination/announcement of the 15 ESR positions.
Announcement of ESRs positions

► Advertisements were published via a variety of internet recruitment portals (e.g. EURAXESS, Euro*Science Jobs, studyportals, Eurojobs, national science societies and the home webpages of the consortium) to guarantee a widespread distribution. The advertisements included:

► a broad description of knowledge and competencies required
► working conditions
► a broad description of ESRs positions
► eligibility criteria
► salary

► The open positions were promoted via e-mail lists to national and international cooperatives.

► The open positions were disseminated by the project beneficiaries through their local and national portals (e.g. job and student portals, press, Career Services Offices of local universities, etc.).

► For any problems and questions: Coordinator and National Contact Point
The short listed eligible candidates were invited to an interview (with physical presence or via skype), where:

1. the candidates were asked to present in English language their research background, interests and future scientific plans

2. a discussion was followed, where a series of questions were asked and answered; providing thus the Evaluation Committee’ members with important information about the candidates background, work experience, personality, ethics, character and future plans.
Selection Process

After that, the members of the Evaluation Committee were able to select the successful candidate for each ESR position.

Official acceptance e-mails/letters were sent by the supervisors of each position to the selected candidates, on behalf of the whole Evaluation Committee.

Rejection e-mails were sent personally to all ineligible and not selected candidates for each ESR position, explaining the reasons for not being selected.
Recruitment Report

15 ESRs Calls

- Total Number of applicants: **338**
- Applicants from **51** Countries:
  - Argentina, Austria, Bangladesh, Belgium, Brazil, Bulgaria, Canada, China, Colombia, Cyprus, Czech Republic, Ecuador, Egypt, Ethiopia, France, Germany, Ghana, Greece, Hungary, India, Iran, Italy, Jordan, Latvia, Lebanon, Malaysia, Malta, Nepal, The Netherlands, Nigeria, Norway, Pakistan, Philippines, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Somalia, Spain, Sweden, Tunisia, Turkey, Uganda, Ukraine, United Kingdom, Uruguay, Uzbekistan, Vietnam

- Gender of applicants: **141** female  ❄️ **196** male
Transferable skills training

**Specialized Training Courses** that provide professional and personal development opportunities beyond what ESRs are generally exposed to in the course of their PhD training.

**Complementary/soft skills courses**, such as writing and publishing research, preparation of research proposals and project management, entrepreneurship/commercial exploitation of research results, presentation skills, ethics, IPR, gender balance in research, etc.

**Local Scientific Training Courses**

**Strong interaction with private sector** (e.g. via ESRs’ secondments)

Trainings are adapted to researcher's **specific needs** *(Personal Career Development Plan, updated every year)*.
Dissemination and Public Engagement

**Scientific dissemination activities:**
- Journal publications
- Conferences/workshops
- Book Chapters
- Publication in Scientific Newsletters
- Patents
- Seminar talks
- Scientific talks

**Public engagement activities:**
- Press articles
- Visits to schools/universities
- Radio/TV talks
- Visit to end-users/public
- Video/audio clips
- Café Scientifique
- Open/Info Days
- Science Festivals/weeks

**Dissemination tools/materials:**
- Website
- Social media
- Newsletters
- Brochure
- Flyers
ANSWER beneficiaries are actively seeking and exploring synergies, partnerships and collaborations with other initiatives/projects/organizations, in order to identify new opportunities for further knowledge transfer/training, and to be fully up to date concerning new developments in the field of wastewater treatment/reuse and antibiotic resistance.

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<tr>
<th>Project Title/Association Name</th>
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<tr>
<td>Ecology from Farm to Fork Of microbial drug Resistance and Transmission (EFFORT)</td>
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<td><em>FP7, FP7-KBBE-2013/613754</em></td>
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<tr>
<td>New and emerging challenges and opportunities in wastewater reuse (NEREUS)</td>
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<td><em>COST Action, COST Action_ES1403</em></td>
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<td>Stopping Antibiotic Resistance Evolution (StARE)</td>
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<td><em>Water JPI</em></td>
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<td>NORMAN Association</td>
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<td>Working Group 5: Wastewater Reuse and Contaminants of Emerging Concern</td>
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<tr>
<td>AcceLerate Innovation in urban wastewater management for Climate change (ALICE)</td>
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<td><em>Horizon 2020, MARIE Skłodowska-CURIE ACTIONS, H2020-MSCA-RISE-2016/734560</em></td>
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<td>Water Reuse Europe</td>
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<td><em>Industry not-for-profit Association</em></td>
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<td>Natural Toxins and Drinking Water Quality - From Source to Tap (NaToxAq)</td>
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<td><em>H2020-MSCA-ETN-2015/722493</em></td>
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<td>Efficiency of different disinfection processes in the removal of antibiotic resistance determinants in experimental pilot systems and full-scale WWTPs (MEG)</td>
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<td><em>Bilateral Italy-China, PGR00793</em></td>
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<td>Swine manure manure upgrade for a sustainable agriculture (VALPUR)</td>
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<td><em>Spanish national project funded by the Ministry of Economy and Competitiveness, TRA2009_0279</em></td>
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<tr>
<td>Identification and prevention of the chemical risk in irrigated agriculture. Holistic impact of the environmental quality on the uptake of contaminants at full-scale crops (RACE)</td>
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<tr>
<td><em>Spanish national project funded by the Ministry of Economy and Competitiveness, AGL2014-59353-R</em></td>
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<tr>
<td>Promoting One Health in Europe through joint actions on foodborne zoonoses, antimicrobial resistance and emerging microbiological hazards (One Health EJP)</td>
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<tr>
<td><em>H2020-SFS-2016-2017 (Sustainable Food Security - Resilient and resource-efficient value chains), 773830</em></td>
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<tr>
<td>The European Innovation Partnership on Water (EIP Water)</td>
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**Contacts/Synergies**
ANSWER scientific activities form 5 technical WPs, interlinking 15 ESRs, supported by 6 training areas: (1) microbiological tools, (2) chemical tools, (3) toxicological tools, (4) modelling tools, (5) process engineering, and (6) data management and prioritisation. The scientific goals of the project cannot be achieved without a strong interfacing among the 6 training areas.

The overall scientific work of the project is strongly interrelated, and synergies, complementarities and linkages among all the ESRs’ projects exist*.

Strong relation to the technical Work Packages/Deliverables of the project.

* ESRs also meet during secondments. An effort was made to have the ESR of the host institution present when the ESR of another institution visited on secondment,
Contribution of each ESR to the realization of the technical WPs and associated Deliverables
First scientific meeting - ESRs’ Day

Crucial meeting for the successful project implementation

... gathered together all the ESRs to get to know each other and create a strong platform/basis for working together throughout the project

- Presentation of the individual scientific projects
  objectives/activities, secondments

- Identification of the synergies among the ESRs’ projects

- Contributions to the scientific WPs and deliverables

- Discussion of the scheduled training/dissemination activities

- Presentation of the role/obligations of the ESRs in the project
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Our website: http://www.answer-iten.eu