Application procedure URBEM-DP – documentation

For the doctoral programme “Urban Energy and Mobility System” (URBEM-DP), the research centre Energy and Environment in cooperation with the Wiener Stadtwerke developed a special application and selection procedure, which will be presented in the following document.

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“Legend“:
- All points marked “♀” specifically target women.
- Challenges (or “critical paths”) of individual procedural steps are marked “❖“.
1 Background and Motivation

In the framework of the strategic cooperation between TU Wien and Wiener Stadtwerke (WSTW), the first flagship project to be established was a joint doctoral programme (DP) (https://urbem.tuwien.ac.at). This DP started on 1 October 2013 with an interdisciplinary design on the subject of “Urban Energy and Mobility Systems” (URBEM-DP):

- 16 participating experts from 8 departments and 6 faculties, and
- 10 experts from subsidiaries of the WSTW Holding.

In the framework of the DP, 10 graduate fellows are recruited. In order to ensure the fair selection of applicants as well as the necessary know how for the whole DP and its substantive goals, the research centre Energy and Environment (E+E) collaborated with the WSTW and the scientific lead of the DP to develop a specific application and selection procedure.

2 Basics and Requirements

The application and selection procedure is grounded in the following project-based requirements (guidelines specific to the doctoral programme and the organisations) as well as existing basics and guidelines:

- German as project language in the DP
- The goal is a 50% women’s quota (no guidelines compared to TU-internal DPs)
- Substantive goals of the whole DP have to be ensured by a suitable choice of candidates
- TU Wien selection procedure: documentation of the Committee on Equal Treatment http://www.tuwien.ac.at/akgleich/aufnahmeverfahren/
- TU Wien Department of Gender Competence, Plan for the Promotion of Women
- TU Wien Human Resource (HR) Department for academic staff
- WSTW selection procedure of individual HR Departments of subsidiaries

The competent persons were asked for input in advance, the procedure as well as all documents were drafted subsequently in cooperation with the HR Department of the WSTW and roughly coordinated with the TU departments as well as the scientific lead of the DP.
3 Challenges and Opportunities

Challenges:
- TU: Establishment of procedures for academic staff by a research coordination department (located within the administration) with guidelines from a corporate partner
- Coordination of participants (scheduling, content, organisation)
- Taking into account the requirements of the corporate partner (WSTW)

The respective challenges (or “critical paths”) will be marked “(GUI” in the following chapters.

Opportunities:
- Utilization of the procedure or parts thereof for future advertisements in the context of doctoral programmes
- Establishment of processes (and contact persons if applicable) with/for “mixed functions” (administration/research)
- Learning effect for all those concerned
- ...

4 Schedule and Tasks

One important factor in the establishment and implementation of the application and selection procedure was a strict schedule that was communicated to all those concerned. The period between the first interviews for the selection procedure to the recruitment of the PhD students was 7 months (March – September 2013).

Tasks:
1 Drafting application procedure
2 Preparation application procedure
   3 Internet site
   4 Drafting advertisement
   5 Tips and tricks for selection of applicants and interviews
   6 Procedure hearing and final selection process
7 TU-internal formal cycle
   8 Advertisement form and signatures
   9 Advertisement form to HR
   10 Posting in TU newsletter
11 Dissemination of information
   12 Conversation with the head of the Department of Gender Competence
   13 Activity (to be defined)
14 Advertisement
   15 Mailing lists
   16 Web news
   17 Mailing to interested parties
   18 Mailing to graduates or via deaneries
   19 Mailing to Austrian universities
20 Publication in relevant technical mailing lists
21 Closing date for applications (4 weeks)

22 Recruitment procedure

23 TU-internal formal cycle 1

24 List of applicants to Committee on Equal Treatment (CET)
25 Filtering of application documents and forwarding to individual faculties
26 Selection of applicants for 1st round of interviews + invitation + information to E+E
27 Application interview list to Committee on Equal Treatment + invitation (to be confirmed)

28 Recruitment process

29 Application interviews 1st round
30 Ranking applicants to E+E
31 Detailed schedule and invitation to hearing + CET
32 Hearing
33 Information to applicants
34 Feedback deadline
35 if applicable backup applicants
36 Feedback deadline backup
37 Rejection of remaining applicants

38 TU-internal formal cycle 2

39 Data sheet per PhD student
40 Submission to CET
41 Submission to HR
42 Contract
43 Employment

 alunos

5 Resources

<table>
<thead>
<tr>
<th>Process</th>
<th>Period</th>
<th>Level</th>
<th>Resource (average hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertisement</td>
<td>March – April 2013</td>
<td>Mostly organisational level</td>
<td>PM: ca. 12h/week</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A: ca. 5h/week, F: ca. 1h/week</td>
</tr>
<tr>
<td>Application phase</td>
<td>May – June 2013</td>
<td>Organisational level</td>
<td>PM: ca. 2h/ week, A: ca. 5h/ week</td>
</tr>
<tr>
<td>Selection procedure</td>
<td>June – Aug. 2013</td>
<td>Organisational and content level</td>
<td>PM: ca. 12h/ week, A: ca. 15h/ week, F: ca. 4x6h blocked</td>
</tr>
</tbody>
</table>
Recruitment procedure | Aug. – Sept 2013 | Mostly organisational level | PM: ca. 10h/ week
A: ca. 10h/ week
F: ca. 1h/ week

- PM ... project management
- A ... project assistant and secretariat
- F ... faculty

- Time availability of resources

6 Advertisement

Schedule tasks 1-5, 7-20.

- One suitable advertisement for all
- Simultaneous mailing of advertisement through all channels by different departments

6.1 Advertisement text

Phrasing targeted for: team work, networking, interdisciplinarity, and for women (explicit invitation of qualified women to apply, goal 50% quota); design of content and layout in order to address both women and men

- 1 general phrasing (see attachment)
- 1 specific phrasing for each of the 10 PhD student positions (see attachment)

6.2 Distribution of advertisement

6.2.1 Advance notice

Via TU-Web news and in personal conversations of the faculty
E-mail via IT to all successful female graduates of a Master’s course within the past 18 months

6.2.2 Mailing

Mailing of the advertisement:

- TU internal (deaneries, relevant services, newsletter)
- Nationally (universities, networks)
- Internationally (universities, networks, databases), including D-A-CH network “Women in Science and Technology” FiNUT
- All successful female graduates of a Master’s course within the past 18 months

Publication in TU web news, the TU info screen, and directly on the URBEM Internet site, on notice boards of relevant departments.

7 Application Phase

Schedule task 21.

Set-up of an Excel sheet for documentation of incoming applications and further documentation of the whole selection procedure. Fields include information on the applicant, the PhD position, remarks, faculty, information on the status (e.g. date of application interview etc.).

- Design for easy management (use of filters)
- Ongoing updates in the course of the whole selection procedure (feedback faculty)
8 Selection Procedure

Schedule tasks 6, 22-32.

- Documentation in Excel in the course of the whole selection procedure (feedback faculty)

8.1 Round 1, Individual Interviews

1. Preparations (RC E+E):
   - Summary of applications per dissertation and submission to faculty (main and secondary supervisor),
   - Including overview schedule (see attachment)
   - As well as guidelines/ tips for application interviews (includes information on the procedure and regarding the women’s quota, see attachment)

2. Selection of suitable applicants (faculty) for the first round of application interviews

3. Coordinated schedule for application interviews, so the scientific head as well as the secondary supervisors get the chance to attend all application interviews (RC E+E)

4. Application interviews, partially in the presence of CET

5. Selection and ranking of max. 3 candidates per dissertation for the second round in the hearing (faculty)

- Time availability and coordination of faculty

8.2 Round 2, Hearing

In order to offer all applicants the same framework and to conduct an equitable interview, we established strict guidelines for the setup as well as for evaluation criteria (see attachment).

Due to the number of candidates as well as the limited availability of the jury the schedule we established was ambitious, but the moderators managed to comply with it. In addition to the setup of the rooms, staff resources are needed to receive the applicants.

![Figure 2: Setup of the rooms for the hearing.](image)

The interview was conducted by a moderator (from the field of human resources) from WSTW, the jury consisted of a total of seven representatives of TU Wien and WSTW (including CET). The interview was structured into a complex of questions, a short presentation and a roleplay, in which the candidate’s skills in the fields of methodology, personality and social skills were addressed and documented by the jury in an evaluation sheet. The selection or ranking of candidates took place in the subsequent discussion by means of the summarized evaluations by means of an Excel sheet and a chart. (Example see Figure 4).
Figure 3: Excerpt from the results of the evaluations at the hearing.

- Implementation of a new procedure at TU Wien
- Strict schedule and high (time) investment
  - An essential factor was the moderation by a person without a content-related agenda and with know how in recruiting,
  - As well as the professional preparation of the whole setup as well as documents

9 Recruitment Procedure

Schedule tasks 33-41.

The whole process was handled by RC E+E (feedback to applicants, data sheet, information to CET and HR Department etc.).

After the hearing, we were able to recruit eight PhD students. For 2 dissertation subjects, there were too few or insufficiently qualified applicants.

- Administrative effort
10 Statistics, Summary

Within the application procedure, the advertisement of the Career Center registered 340 accesses, which is a high number for a technical position. In total, 125 applications were submitted for all ten positions, 39 of them \[\uparrow\]. After the hearing and the feedback of applicants, we were able to fill eight of the ten positions, four of them with \[\uparrow\] (see Figure 5).

![Figure 4: Statistics of the application process.](image)

Conclusion:

- The percentage of female PhD students (50%) was higher compared to female applicants (31%)
- The first project work of the PhD programme participants in October 2013 showed that the assembled team was ideal.

The author ascribes this to:

- No specific target for a fixed women’s quota, but standards (guidelines) for the selection for interviews and hearing (which meant that the focus was the qualification)
- The two-stage selection procedure
- The hearing setup

In summary, the following points in particular were essential for the success of the whole process:

- Good planning (time and tasks)
- Simple and structured documentation (applicants, guidelines, documents)
- External know how in the field of HR
- Targeted communication (few e-mails with the most important information)
- Allowance for time availability of academic staff
- Motivation of all those concerned
Selection Guidelines

Dates and schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24 June</td>
<td>Applicant selection</td>
<td>Invitations to applicants List of applicants, date of interviews, information (completed Excel sheet) to administration/ coordination</td>
</tr>
<tr>
<td>25 June - 18 July</td>
<td>Application interviews</td>
<td>1st round (technical competence/ interdisciplinary systemic thinking)</td>
</tr>
<tr>
<td>19 July (at the latest)</td>
<td>Ranking</td>
<td>Ranking of applicants and shortlist of 3 candidates including reasons to administration/ coordination</td>
</tr>
<tr>
<td>7-9 August</td>
<td>Hearing</td>
<td>2nd round (soft skills, team oriented), selection and ranking in the presence of:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- WSTW (3): RTI, HR head, corporate group, department (lead or deputy lead)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- TUW (3-4): DP lead, department, CET/E+E</td>
</tr>
</tbody>
</table>

DP-specific relevant aspects

General knockout criteria (apart from incomplete application documents):
- German skills must be sufficient to follow meetings and to write a dissertation in German.

Other aspects that need to be taken into account:
- Employment in addition to dissertation (or dissertation as secondary employment) is problematic due to time requirements -> needs to be clarified in the application interview
- A delicate issue are applicants whose secondary employment is with a competitor of WSTW

All qualified applicants (advertised criteria) must be invited to the 1st round. The goal of a women’s quota of 50% in the doctoral programme has to be taken into account as best as possible here.

The selection of applicants to be invited is decided by the main supervisor in coordination with the secondary supervisor. The following application interview is conducted by the main and/or secondary supervisor, where appropriate in the presence of the CET (TU Committee on Equal Treatment). For applicants who applied for more than one dissertation subject, it is advisable to coordinate these cases with the concerned main/secondary supervisors. It has to be taken into account that one jury member from the 1st round also has to be present at the hearing (2nd round) (preferably the main supervisor).

The shortlist of 3 candidates submitted on the basis of the first round has to include at least one woman (if available). TU Wien aims to increase the proportion of women, in particular in its scientific staff. Female applicants with equal eligibility as their most suitable male competitor are given priority, unless there are prevailing reasons in the person of their competitor.
Suggestions

These suggestions were compiled based on information of WSTW and TU-internal departments (HR department, CET, Gender Competence, ...).

a) Review of application documents

- Repeat the review of application documents in order to analyse all aspects in the overall view
- Ignore photo/name/gender
- If a female applicant is not suitable, the exclusion criteria should be revisited; in any case, they need to be documented in writing.

b) Application interview, 1st round

This phase of the application procedure focuses on the review of technical competence and the screening of interdisciplinary outlook and systemic thinking. Accordingly, our recommendation is to consider the following questions:

- What are the distinguishing strengths of the applicant in his/her field? Cf. also advertisement
- Can the applicants demonstrate experience or previous knowledge regarding the “system city”?
- Did the applicants study the challenges of the URBEM project and can they name these?
- Does the applicant show commitment to interdisciplinary collaboration and does s/he recognize the need for interfaces?
- What was the motivation of the applicant to apply for the doctoral programme?
- If you have the impression that an applicant might be (also or more) suitable for a different dissertation subject, address this fact and if necessary contact the relevant main supervisor.

When you conduct application interviews: be aware that men and women often present themselves differently. While the male candidate acts the future Nobel Prize laureate, the female candidate often seems insecure and thus less competent. Try to disregard this and discover the ACTUAL competences and skills of the applicants. You will be amazed how well men can bluff – and how much female understatement can deceive you.

Hints with regard to labour law

We know you are aware of the Directives on Equal Treatment in an application procedure, and that these are also implemented in the faculties. Nevertheless, we may remind you of the most important parameters:

- Applied criteria have to be objective and non-discriminatory.
- The final decision for an applicant must be transparent and plausible based on the advertisement as well as according to professional aspects and aspects of equal treatment.

Click here for the TU Committee on Equal Treatment.

Further reading

International studies show that implicit preconceptions regarding male and female candidates for an advertised position/ academic qualification are an important obstacle to the equal treatment of male and female applicants. The Harvard University provides an online test (see https://implicit.harvard.edu/implicit/austria/) that allows you to become aware of your own, unconscious biases.

For further information on the subject of bias in the working place, please see the attached Nature articles (recommended: “Scientists of the world speak up”, last contribution by Liisa Husu, “Most of us are biased” in full length).
Application procedure URBEM-DP – Hearing

1 Setup

1.1 General Information

Applicants:
- Approx. 30 min for preparation

Hearing:
- 40 min per applicant (approx. 35 min conversation, 5 min evaluation/discussion if applicable)
- -> One block per dissertation subject at 2 hours 20 minutes (3 x 40 min + 20 min final discussion and decision)

Conversation (30-35 min, conducted by female moderators):
- 3 blocks of questions (28 min):
  - Specialist and methodological skills (10min): question for preparation, additional questions possible (e.g. targeted questions for applicants who are already in a job)
  - Personal skills (9 min): set questions
  - Social skills (9 min): set questions
- Roleplay (5 min): set assignment
  - To continue working on your dissertation subject, you depend on the results of one of your colleagues. Two weeks before a deadline s/he announces that s/he cannot deliver these results on time. How do you proceed?
- Questions by the applicant are not allowed\(^1\)

Applicants are informed of positive or negative results within the following 1-2 weeks.

1.2 Jury/ committee\(^2\)

3 representatives of Wiener Stadtwerke:
- RTI coordination
- Sectorial management (or representative thereof) matching the subject of the relevant dissertation
- Human Resources Department

3 representatives of TU Wien:
- Supervisor (main sup.) or secondary supervisor (sec. sup.) of the relevant dissertation
- Scientific leader
- URBEM-DP coordination TU Wien

1 representative of the Committee on Equal Treatment at the TU Wien (thematically matched with the relevant dissertation)

1 female moderator (WSTW)

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\(^1\) Note: strict time limit as well as heterogeneous group. Possible questions can be clarified during the acceptance phone call

\(^2\) no additional people, the jury is large enough with 8 people and constitutes a challenge for the applicants
1.3 Questions and evaluation criteria

See document URBEM-DK_Hearing_documents_eng.docx
## 2 Schedule (example day)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Candidate</th>
<th>Supervisor</th>
<th>Representative</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 s.t.-9:00</td>
<td>arrival committee/ jury and first applicant</td>
<td>Candidate 1</td>
<td>Supervisor</td>
<td>Representative Wiener Stadtwerke</td>
</tr>
<tr>
<td>9:00-11:20</td>
<td>Dissertation 5</td>
<td>Candidate 2</td>
<td>Supervisor</td>
<td>Representative Wiener Stadtwerke</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Candidate 3</td>
<td>Supervisor</td>
<td>Representative Wiener Stadtwerke</td>
</tr>
<tr>
<td>11:20-12:00</td>
<td>Break and arrival committee/ jury</td>
<td>Candidate 4</td>
<td>Supervisor</td>
<td>Representative Wiener Stadtwerke</td>
</tr>
<tr>
<td>12:00-14:20</td>
<td>Dissertation 6</td>
<td>Candidate 5</td>
<td>Supervisor</td>
<td>Representative Wiener Stadtwerke</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Candidate 6</td>
<td>Supervisor</td>
<td>Representative Wiener Stadtwerke</td>
</tr>
<tr>
<td>14:20-15:00</td>
<td>Break and arrival committee/ jury</td>
<td>Candidate 7</td>
<td>Supervisor</td>
<td>Representative Wiener Stadtwerke</td>
</tr>
<tr>
<td>15:00-16:00</td>
<td>Dissertation 7</td>
<td>Candidate 8</td>
<td>Supervisor</td>
<td>Representative Wiener Stadtwerke</td>
</tr>
</tbody>
</table>
HEARING

URBEM DOCTORAL PROGRAMME

[Title Subject]
Dissertation 5

[Date]

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5 DEFINITION OF SKILLS ............................................................................................................................. 5
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1 HEARING PARTICIPANTS

Hearing committee (in alphabetic order):

[Name, institution]

Committee on Equal Treatment at TU Wien

[Name]

Moderation:

[Name, institution]

2 STRUCTURE

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>08.30-09.00 am</td>
<td>Welcome/ introduction regarding documents</td>
</tr>
<tr>
<td>09.00-09.35 am</td>
<td>Candidate 1 (m/f)</td>
</tr>
<tr>
<td>09.35-09.40 am</td>
<td>Submission of evaluation sheet</td>
</tr>
<tr>
<td>09.40-10.15 am</td>
<td>Candidate 2 (m/f)</td>
</tr>
<tr>
<td>10.15-10.20 am</td>
<td>Submission of evaluation sheet</td>
</tr>
<tr>
<td>10.20-10.55 am</td>
<td>Candidate 3 (m/f)</td>
</tr>
<tr>
<td>10.55-11.20 am</td>
<td>Submission of evaluation sheet/ observers’ conference</td>
</tr>
</tbody>
</table>

Duration: approx. 35 minutes per candidate

Procedure:
- Introduction of hearing committee
- Explanation of the process
- Questions according to questionnaire
- Roleplay
- Evaluation/ observations/ discussion
3 INSTRUCTIONS FOR OBSERVERS

• No feedback during the hearing

The candidate should not be able to discern whether his/her strategy is heading in the right direction or not;

• Consider typical evaluation errors
  ➢ First/last impression is overrated
  ➢ One striking feature/characteristic influences perception
  ➢ Sympathy/antipathy

• Evaluations continue over the whole duration of the hearing
4 DISSERTATION SUBJECT AND PROFILE OF QUALIFICATION

Dissertation 5: [title]

Research question of the PhD project

• ...
• ...

Aimed-for result of the dissertation

...

Details

...

Supervision

Main supervisor: [name, institution]

Secondary supervisor: [name, institution]

Qualifications, requirements

• ...
• ...
5 DEFINITION OF SKILLS

<table>
<thead>
<tr>
<th>Methodological skills</th>
<th>Organisational abilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Creates structure and designs processes</td>
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<td></td>
<td>Defines priorities</td>
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<td></td>
<td>High level of self-organisation</td>
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<tr>
<td></td>
<td>Takes organisational context into account</td>
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<td></td>
<td>Organisational outlook</td>
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<tr>
<td></td>
<td>Knowledge of corporate policies</td>
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<tr>
<td></td>
<td>Takes (internal and external) organisational structures and contexts into account</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal skills</th>
<th>Proactivity (active commitment, motivation, ambition)</th>
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<tbody>
<tr>
<td></td>
<td>Internal dynamics</td>
</tr>
<tr>
<td></td>
<td>Active approach to challenges</td>
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<tr>
<td></td>
<td>Empathy (emotional intelligence, sensitivity)</td>
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<tr>
<td></td>
<td>Is good at sensing moods/ atmospheres</td>
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<tr>
<td></td>
<td>Confronts difficult interpersonal situations</td>
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<td></td>
<td>Creativity (creative will, innovative ability)</td>
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<tr>
<td></td>
<td>Wants to be creative</td>
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<td></td>
<td>Asks questions</td>
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<td></td>
<td>Offers suggestions</td>
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<td></td>
<td>Self-reliance (independence)</td>
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<tr>
<td></td>
<td>Acts responsibly</td>
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<tr>
<td></td>
<td>Can solve tasks on his/her own responsibility</td>
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<td></td>
<td>Reacts to difficulties</td>
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<td></td>
<td>Sense of purpose (implementation strength, decision-making ability, results orientation)</td>
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<tr>
<td></td>
<td>Has clear goals</td>
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<td></td>
<td>Works efficiently and ignores distractions</td>
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<td></td>
<td>Highly concentrated</td>
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<tr>
<td></td>
<td>Reliability (diligence, precision)</td>
</tr>
<tr>
<td></td>
<td>Pays attention to details</td>
</tr>
<tr>
<td></td>
<td>Is attentive in routine tasks, too</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social skills</th>
<th>Ability to deal with conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Is aware of conflict</td>
</tr>
<tr>
<td></td>
<td>Actively participates in solving conflicts</td>
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<tr>
<td></td>
<td>Interpersonal skills (readiness to network)</td>
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<tr>
<td></td>
<td>Actively reaches out to other people</td>
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<tr>
<td></td>
<td>Creates a positive climate of dialogue</td>
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<td></td>
<td>Uses clear language</td>
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<td>Is able to anticipate (other lines of business)</td>
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<tr>
<td></td>
<td>Capacity for teamwork (ability to cooperate, ability to adapt)</td>
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<tr>
<td></td>
<td>Refers to others’ contributions</td>
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<td></td>
<td>Asks questions</td>
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<td></td>
<td>Solves problems collectively</td>
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<td></td>
<td>Communicative abilities (rhetorical abilities)</td>
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<tr>
<td></td>
<td>Can communicate his/her own goals and expectations as required by the situation</td>
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<td></td>
<td>Is aware of the four levels of communication</td>
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<td></td>
<td>Can interpret non-verbal signals</td>
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<td></td>
<td>Motivational capability</td>
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<tr>
<td></td>
<td>Motivates and supports team members</td>
</tr>
<tr>
<td></td>
<td>Takes team building measures</td>
</tr>
</tbody>
</table>
### 6 QUESTIONNAIRE SECTION

#### Specialist and methodological skills

<table>
<thead>
<tr>
<th>Question for preparation</th>
<th>Preparation time: 30 min</th>
</tr>
</thead>
</table>
| Present your overall approach to your dissertation subject. Please consider the following questions in particular:  
  • Initial steps  
  • Which interfaces do you identify?  
  • Challenges and critical factors |

#### Personal skills

<table>
<thead>
<tr>
<th>Question 1</th>
<th>(3 min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe your motivation for your application for your chosen dissertation subject and cite two precise reasons why you are the most suitable candidate.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question 2</th>
<th>(3 min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>From your personal perspective: What defines the success of the doctoral programme, and how do you measure it?</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Question 3</th>
<th>(3 min)</th>
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</thead>
<tbody>
<tr>
<td>What was your biggest success or your biggest challenge so far? (What are you proud of?)</td>
<td></td>
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</tbody>
</table>

#### Social skills

<table>
<thead>
<tr>
<th>Question 4</th>
<th>(3 min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your usual role in a team? (Describe your individual way of working in project work using examples.)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Question 5</th>
<th>(3 min)</th>
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</thead>
<tbody>
<tr>
<td>How do you ensure efficient project delivery, and how do you ensure the commitment of your dissertation colleagues?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question 6</th>
<th>(3 min)</th>
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</thead>
<tbody>
<tr>
<td>Imagine the following fictional situation: your supervisor and you have a disagreement regarding the evaluation of the relevance of a particular aspect of your dissertation – what is your reaction?</td>
<td></td>
</tr>
</tbody>
</table>
Roleplay

(5 min)

Background information:

To continue working on your dissertation subject, you depend on the results of one of your colleagues. Two weeks before a deadline s/he announces that s/he cannot deliver these results on time.

How do you proceed?

Role definition moderator:

- Role behaviour:
  - Relationship problems, exams, vacation
  - Irritated, egocentric behaviour
  - “This is my PhD, it’s none of your business, don’t make a fuss” – does not see the need to coordinate and work together

Evaluation scale

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shows clear weaknesses</td>
<td>Shows more weaknesses than strengths</td>
<td>Shows weaknesses and strengths, overall average</td>
<td>Shows strengths, overall good</td>
<td>Shows clear strengths, overall very good</td>
</tr>
</tbody>
</table>
The Wiener Stadtwerke Holding AG and the Technische Universität Wien are establishing a joint doctoral programme titled "Urban Energy and Mobility System". Its goal is to research and develop scenarios for the path towards a “sustainable, supply secure, affordable city with a high quality of life”, using the example of the City of Vienna in an integrated and interdisciplinary doctoral programme. From the synergies between research and corporate business, 10 graduates in the fields of “energy systems of the future” and “new mobility” will have the opportunity of employment at the TU Wien for the duration of 3 years, with the aim of completing their PhD studies.

We will recruit

10 PhD students (m/f) at the TU Wien

from (date). By embedding them into a collaboration between individual research groups at the TU Wien and subsidiaries of the Wiener Stadtwerke Holding AG, we will provide an exhaustive, team-oriented training which will also be strongly marked by entrepreneurial thinking.

Areas of Competence:

- Economic modelling of scenarios of the energy system in consideration of energy markets
- Modelling of mobility, buildings, material, thermal and electrical networks
- Visualisation/interactive space-related expert systems and computing/distributed and parallel computing
- Typologies of social inequality, patterns of spatial distribution

For details about the 10 positions as well as dissertation subjects, the doctoral programme, and the application procedure, please see: http://urbem.tuwien.ac.at

Your qualification profile:

- Completed relevant university degree
- Very good communication and team skills
- Networked thinking
- Good writing skills and very good English
- Affinity to the “system” city

Our offer:

- Interdisciplinary training environment with team and individual supervision
- Supervision by main supervisor at the TU Wien and contact person at the Wiener Stadtwerke
- Collaboration with professional, committed teams
- Customized courses
- Employment in the subsidiaries of the Wiener Stadtwerke Holding AG in the form of internships

Applicants will be selected in a hearing, recruitment is planned as of 1 October 2013. The gross salary for the PhD student position (pre-doc project assistant) will be 22,400 Euros annually, 25 hours weekly. The working language of the doctoral programme will be German.

Start & duration doctoral programme: (start date), duration: 3 years
Application period: (period; 5 weeks)
Hearing: within (3 days)

You are a proactive personality, eager to learn, and are highly self-responsible and have a wide variety of interests? We are looking forward to your application (including letter of motivation and existing degrees and certificates)! We particularly call upon women to apply for the doctoral programme – we are aiming for a quota of 50%!

Contact and applications for the doctoral programme “Urban Energy and Mobility System” specifying the specific dissertation subject:
1 PhD student (m/f) at the TU Wien

Dissertation subject 1 “Perspectives of building-related energy demand and energy provision in interplay with the overall energy system”

Your qualification profile:

• Completed university degree in economics or technical degree
• Knowledge in energy management
• Strong analytical skills
• Very good communication and team skills
• Networked thinking
• Good writing skills and very good English
• Affinity to the “system” city