Building a solution on top of SAP E-recruiting to support academic and non-academic staff recruitment and selection.

Ans Berghmans

Session # F-4
Agenda

1. **E-recruiting@KU Leuven**
   In this part, I will explain how we set up E-recruiting to support KU Leuven recruitment processes.

2. **Case: recruiting a PhD student**
   Movie time!
   In this part, I will show how our software support the recruitment of PhD researchers (PhD scholarship holders or research associates who undertake a PhD research).
1. E-recruiting@KU Leuven
Never finished!

• We started with building software on top of E-recruiting at 2010 (so, a long time ago) and we are not ready yet. Never finished!
• The software supports KU Leuven recruitment processes:
  o Publishing of a vacancy on the KU Leuven jobsite and other job boards
  o Candidates applying for a job
  o Selecting the right candidate by screening CV’s, conducting selection interviews and organizing tests
  o Appointing the selected candidate
Never finished!

- Focus of past years was on:
  - Publishing of a vacancy
  - Candidates applying for a job
  - Selecting the right candidate
- Focus of this year will be on:
  - Figures and analytics. BI. TAMO.
  - Publishing of student jobs
  - Selection process for senior academic staff
- Focus of 2017 will be on:
  - Appointing the selected candidate
- We continue to build but now according to the agile approach.
Different needs for different staff categories

- We built software to support processes for both academic and non-academic staff. Staff categories:
  - **Senior academic staff**: assistant professors, associate professors, professors and full professors
  - **Academic staff**: (research) assistants, teaching assistants, postdoctoral assistant and research associates with research or teaching duties
  - **Non academic staff**: office workers with an administrative, service, expert or management job in fields like IT, HR, engineering, finance, etc.

<table>
<thead>
<tr>
<th></th>
<th>2015 vacancies</th>
<th>2015 candidates</th>
<th>candidates/vacancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>senior academic staff</td>
<td>81</td>
<td>1521</td>
<td>19</td>
</tr>
<tr>
<td>academic staff</td>
<td>609</td>
<td>15179</td>
<td>25</td>
</tr>
<tr>
<td>Non academic staff</td>
<td>328</td>
<td>10482</td>
<td>32</td>
</tr>
</tbody>
</table>
Different needs for different staff categories

- Recruitment processes for these categories differ from each other. We discuss some examples.
- Example 1: Publishing a vacancy:
  - The blocks of a posting on the jobsite differ

<table>
<thead>
<tr>
<th>Senior academic staff</th>
<th>Non academic staff</th>
</tr>
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<tbody>
<tr>
<td>Description of the unit</td>
<td>Description of the unit</td>
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<tr>
<td>Vacancy title</td>
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<td>Duties</td>
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<td>Requirements</td>
<td>Profile</td>
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<td>Offer</td>
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<tr>
<td>Interested?</td>
<td>Interested?</td>
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</tbody>
</table>
Different needs for different staff categories

• Example 2: Application form:
  o Applicants for a professor vacancy (senior academic staff) have to fill in a “heavy” application form. They are asked to enter work experience and study history in a structured way and have to upload four different attachments: CV, motivation letter, publication list, five most important publications.
  o Applicants for vacancies for a job in the other two categories have to fill in a “light” application form. They have to fill in contact data (cellphone number and e-mail address) and have to upload a motivation letter and CV.
Different needs for different staff categories

• Example 3: Involvement of HR department:
  o High involvement for non academic staff. HR department takes the lead. They organize selection activities (interviews, tests, …).
  o Low involvement for academic staff. Selection activities are conducted by promotor or head of organizational unit.
  o Low involvement for senior academic staff. Selection activities are conducted by the advisory committee of the faculty involved.
Different needs for different staff categories

- These differences are a challenge! If possible, we deal with these differences by parameterization of our software.
- Sometimes, needs are very specific to a particular category. In that case, an application/feature is built to serve the needs only for this particular category.
Technical setup

• Over the years, we have built a lot of software ...
• The boxes on the next slide are an application or an interface. Most of the applications are developed by ourselves, at KU Leuven, but we also use a small number of standard E-recruiting applications.
The Z-E-Recruiting
Technical setup

• In the heart of this network of applications is a class framework. The main classes in this framework are: vacancy, vacancy notice, posting, candidate, candidacy.

• Standard E-recruiting objects and infotypes are used to keep the data. The classes read and update these infotypes.

• Different kind of technologies/tools were used to build customer specific applications:
  o ABAP Webdynpro, Floor Plan Manager, SAPUI5, Gateway Services, Document Presentment, SAP Workflow, BSP, PHP, Adobe Print Forms, …
Technical setup

- We also use applications developed by other KU Leuven teams, for example:
  - Applicants use the self-registration application built by the IT security team of KU Leuven to get a login.
- And we use applications from vendors:
  - We use the multiposting tool, “In Goede Banen”, to post vacancies on a number of job boards.
  - We are going to use TAMO to measure efficiency of posting channels.
2. Case: recruiting a PhD researcher
Jobsite

http://www.kuleuven.be/jobsite
## Research Areas Humanities and Social Sciences

<table>
<thead>
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<th>Subject</th>
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<tbody>
<tr>
<td>Anthropology</td>
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<tr>
<td>Area studies</td>
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<td>Business Economics</td>
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<td>Canon Law</td>
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<td>Communication - Media</td>
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## Research Areas Science, Engineering and Technology

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<td>Civil Engineering</td>
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<td>Computer Science</td>
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<td>Earth and Environmental Sciences</td>
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<td>Electrical Engineering</td>
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<td>Mechanical Engineering</td>
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You are here: KU Leuven jobsite › Vacancies

Vacancies

Nederlandse versie
PhD in digital design for efficient embedded machine learning - Ref. BAP-2016-114
In the MICAS group of the Department of Electrical Engineering (ESAT) Full-time - Fixed-term contract - Leuven of KU Leuven, we are looking for a motivated Ph.D. candidate with an interest in both low-power embedded system design and machine learning algorithms for a research project on energy-efficient implementation of deep learning networks.

Ph.D. Position in software defined radio and networking - Ref. BAP-2016-30
The TELEMIC group of the Department of Electrical Engineering (ESAT) of KU Leuven, is looking for a motivated Ph.D. candidate with an interest in both wireless communication and software defined radio for a research project on software defined radio and networking.

Phd position in "Micro-electronics for micro-biology" - Ref. BAP-2016-115
In the MICAS group of the Department of Electrical Engineering (ESAT) Full-time - Fixed-term contract - Leuven of KU Leuven, we are looking for a motivated Ph.D. candidate with an interest in both low-power embedded system design and micro-biology for a research project on embedded electronic system design for bio-electrochemical systems in collaboration with the bio-engineering faculty of Ghent University.

Ph.D. Position in software defined radio and networking - Ref. BAP-2016-105
The TELEMIC group of the Department of Electrical Engineering (ESAT) of KU Leuven, is looking for a motivated Ph.D. candidate with an interest in both wireless communication and software defined radio for a research project on software defined radio and networking.
PhD in digital design for efficient embedded machine learning

(Ref. BAP-2016-114)

**Occupation:** Full-time  
**Period:** Fixed-term contract  
**Place:** Leuven  
**Apply no later than:** April 15, 2016

This job opening covers a research position at the ESAT-MICAS laboratories of KU Leuven (Belgium) for a Ph.D. candidate in the frame of a project on resource-efficient digital implementations of machine learning algorithms, focused around deep learning networks for image processing.

PhD in digital design for efficient embedded machine learning

MICAS (Microelectronics and Sensors) is a research division of the Department of Electrical Engineering (ESAT) of KU Leuven at the KU Leuven, Belgium, Europe. The group consists of 76 full-time professors, 5 part-time and associate professors, about 80 Ph.D. researchers and 12 persons for administrative and logistic support and services. About 75 % of all research is supported by industry.

The mission of MICAS is to provide top-notch education and to carry out research at the highest possible scientific level and with worldwide international recognition in the field of design of integrated electronic circuits and sensors. The research covers all kinds of circuit design, ranging from analog, RF and microwave, mixed-signal, digital, sensor interfaces and MEMS, and this in any available technology (CMOS, SiGe, high-voltage, organic, nano technology, etc.).

**Website unit**  
**Project**

This job opening covers a research position at the ESAT-MICAS laboratories of KU Leuven (Belgium) for a Ph.D. candidate in the frame of a project on resource-efficient digital implementations of machine learning algorithms, focused around deep learning networks for image processing.
Posting a vacancy on the jobsite

Three steps needed to be done to post this vacancy on the KU Leuven jobsite:

1. Prof dr. ir. Marian Verhelst has created the vacancy by means of the portal application “vacancies en applicants”.

2. When she finished editing the vacancy, an email was sent to Prof dr. ir. Bart Nauwelaers. He is the department chair of the Department of Electrical Engineering. He is asked to approve the vacancy.

3. After the vacancy is approved by Prof dr. ir. Bart Nauwelaers, it is published on the jobsite.
Step 1: creating the vacancy

- Prof dr. ir. Marian Verhelst creates the vacancy by means of the portal application “vacancies en applicants”.
- Movie time: vacancy.avi (I will give you a crash course Dutch ;-))
- She has to fill in a form that consists out of three parts (technology: ABAP Webdynpro):
  - Context of the vacancy:
    - organizational unit, period, employment rate, …
  - Publication and jury:
    - Publication period and domain for jobsite
    - Who can see the candidates?
  - Vacancy notice: texts for publication on the jobsite
Step 1: creating the vacancy (backup slides)

### Context of the vacancy

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<tr>
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<th>Value</th>
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<tr>
<td>Category</td>
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<td>Durum</td>
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<tr>
<td>Financiering</td>
<td>Kredieten</td>
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<tr>
<td>Organisatorische eenheid</td>
<td>50000520 Afdeling ESAT - MICAS, Micro-elektronica en Sensoren</td>
</tr>
<tr>
<td>Diensthoofd</td>
<td>U0006076 Prof. dr. ir. Wim Dehaene</td>
</tr>
<tr>
<td>Titel van de vacature</td>
<td>HERUG PhD in digital design for efficient embedded machine learning</td>
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<tr>
<td>Tewerkstelling</td>
<td>Voltijds</td>
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<td>Voorgestelde startdatum</td>
<td>01.09.2016</td>
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<td>Contactpersoon 1</td>
<td>U0043529 Prof. dr. ir. Marian Verheest</td>
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<tr>
<td>Contactpersoon 2</td>
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<tr>
<td>Plaats van tewerkstelling</td>
<td>Leuven</td>
</tr>
</tbody>
</table>

**Gegevens i.v.m. doctoraatsproject**
Step 1: creating the vacancy (backup slides)

Publication and jury

Publication & inzage
Publication

Publicatie zo snel mogelijk na: 02.04.2016
Publicatie tot en met: 15.04.2016
Geef hieronder de publicatiekanalen die je verkies: Overzicht publicatiekanalen.

Extra publicatiekanalen behandeld: [ ] enkel door de personeelsdienst in te vullen [ ] Publicatiekanalen

Publicatie op Euraxess

De vacature zal gepubliceerd worden op Euraxess.

Extra informatie voor publicatie op Euraxess

Hou er rekening mee dat voor publicatie op Euraxess een Engelstalig bericht vereist is. Onderstaande informatie kan (optioneel) opgegeven worden voor de publicatie op Euraxess.

Career stage: [ ] Early stage researcher or 0-4 yrs (Post graduate)

Main research field Sub research field
[ ] Engineering [ ] Electronic engineering

Research framework programme: [ ] No [ ] Agreement number:
Step 1: creating the vacancy (backup slides)

Vacancy notice

In the MICAS group of the Department of Electrical Engineering (ESAT) of KU Leuven, we are looking for a motivated Ph.D. candidate with an interest in both the development and efficient implementation of deep learning networks.

This job opening covers a research position at the ESAT-MICAS laboratories of KU Leuven (Belgium) for a Ph.D. candidate in the frame of a project on resource-efficient networks for image processing.

PhD in digital design for efficient embedded machine learning

Reference: BAP-2016-114

Description of the organizational unit: MICAS (Microelectronics and Sensors) is a research division of the Department of Electrical Engineering (ESAT) of KU Leuven at the KU Leuven, Belgium. Thanks to the collaboration with KU Leuven researchers and 12 persons for administrative and logistic support and services. About 75% of all research is supported by industry.

The mission of MICAS is to provide top-notch education and to carry out research at the highest possible scientific level and with worldwide international recognition.
Step 2: approval of the vacancy

- When Prof. Verhelst finishes editing the vacancy, an email is sent to Prof dr. ir. Bart Nauwelaers. He is the department chair of the Department of Electrical Engineering. He is asked to approve the vacancy.
Step 2: approval of the vacancy
Step 3: posting of the vacancy

- After the vacancy is approved by Prof dr. ir. Bart Nauwelaers, it is posted on the jobsite.
- Posting a vacancy means inserting the vacancy in “the” XML of the jobsite. This is done by an SAP workflow.
- The jobsite application and SAP share a folder whereupon the XML for the jobsite is placed. This XML contains all vacancies that are in response time.
- The jobsite application filters all vacancies, that fulfill the request of the user, out of the XML. This is done by means of XSLT transformations.
  - If a user clicks on the tile “Electrical Engineering”, the application filters alle vacancies posting in that domain out of the XML.
Candidates apply for the job

- Once the vacancy is posted, candidates can apply for the job!
- A candidate first has to request a KU Leuven logon by means of the self-registration application.
- Thereafter, the candidate can login in the application form.
- For this job category, the “light” application form is used.
- Movie time: apply.avi
  - Claire Smits applies for the job!
- Technology:
  - SAPUI5
  - Gateway services
Candidates apply for the job (backup slides)

<table>
<thead>
<tr>
<th><strong>First name:</strong></th>
<th>Claire</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Last name:</strong></td>
<td>Smith</td>
</tr>
<tr>
<td><strong>Email:</strong></td>
<td><a href="mailto:anslouisa@gmail.com">anslouisa@gmail.com</a></td>
</tr>
<tr>
<td><strong>Mobile:</strong></td>
<td>0032456789334</td>
</tr>
<tr>
<td><strong>Birth date:</strong></td>
<td>12/04/1993</td>
</tr>
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<td><strong>Nationality:</strong></td>
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<td><strong>Communication language:</strong></td>
<td>Dutch</td>
</tr>
<tr>
<td><strong>Gender:</strong></td>
<td>Female</td>
</tr>
</tbody>
</table>

Continue
Candidates apply for the job (backup slides)
Selecting the right candidate

• From the moment, an applicant has confirmed his/her candidacy, the promotor Prof. Verhelst (and other jury members) can see the candidacy file in the portal.

• She can see the data entered by the candidate (name, mobile, date of birth, …) and she can see the uploaded attachments (CV, motivation letter).

• She can make notes.

• She can reject candidates that do not comply. Candidates get a friendly rejection e-mail.

• Movie time: candidate.avi

• Technology: SAPUI5, Gateway services, Document Presentment
Selecting the right candidate (backup slides)

### Candidacy list

<table>
<thead>
<tr>
<th>Naam kandidaat</th>
<th>Notitie</th>
<th>Personeel</th>
<th>Status kandidaat</th>
<th>Status reden</th>
<th>Datum sollicitatie</th>
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<tbody>
<tr>
<td>David James</td>
<td></td>
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<td>Bevestigd</td>
<td></td>
<td>02/04/2016</td>
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<tr>
<td>Scott Lee</td>
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<tr>
<td>Phil Simon</td>
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<tr>
<td>Toby Stark</td>
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<td>02/04/2016</td>
</tr>
</tbody>
</table>
Selecting the right candidate (backup slides)

Candidacy file

David James
Sollicitatie
BAP-2016-55

IDENTIFICATIE
Voornaam : David
Geboortedatum : 11-10-1990 (25j)
Nationale : Amerikaans (US)

Familienaam : James
Geslacht : Man
Communicatie : Engels

CONTACTGEGEVENS
GSM-nummer : 003246677776
Email : david.james@test.com

BIJLAGEN
Type : Motivatiebrief
CV
Filenaam : Letter David James.pdf
CV David James.pdf
Selecting the right candidate (backup slides)

David James

22 King’s Road, Notting Hill, London NW17 3YU

Email: rf@yahoo.co.uk Mobile: 0339005678 Tel: 0167534768

CAREER OBJECTIVE:
I am keen to begin a career in biomedical science. I am a recent graduate who combined studies with working and other commitments. In achieving this, I have shown myself to be self-motivated, committed and determined in achieving my goals, come what may. I have also demonstrated negotiating and organizing skills, a firm sense of responsibility and my capacity to work hard under pressure. I possess excellent verbal and written communication skills and am able to relate...
Selecting the right candidate (backup slides)

Making a note for a candidacy

- Interesting candidate
- Has done research in the field of
Selecting the right candidate (backup slides)

<table>
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<tr>
<th>Naam kandidaat</th>
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</table>

Rejecting a candidate
Selecting the right candidate (backup slides)

Rejecting a candidate

Your application for job vacancy HERUG PhD in digital design for efficient embedded machine learning (ref. BAP-2016-55)

Dear Scott Lee,

Some time ago you applied for job vacancy HERUG PhD in digital design for efficient embedded machine learning (ref. BAP-2016-55). After a thorough assessment of your application file, we regret having to inform you that we are unable to respond to your job application with a favourable outcome.

Should you have any questions or need any further information, please do not hesitate to contact the HR manager of the relevant faculty and/or department, as stated in the vacancy announcement.

If you applied for more than one position, please note that this letter applies exclusively to the job vacancy listed above.

We greatly appreciate your interest in working at KU Leuven and wish you all the best in your search for employment in the future. New job vacancies are always posted at: www.kuleuven.be/jobsite.

Best regards,

Ans Berghmans
I want you to meet some special people …
Great work by great people!
Questions?

Ans.berghmans@kuleuven.be