With support of the University Development Cooperation section of the Flemish Interuniversity Council (VLIR-UOS) through its Short Training Initiative (STI) programme, the Spatial Applications Division of the Katholieke Universiteit Leuven in Belgium (SADL/K.U.Leuven) offers a two-week English taught "Train-the-Trainer" summer course:

Free and Open Source Geomatics tools for processing and sharing of geospatial data
with emphasis on the Quantum-GIS, GRASS- and R-software

27-July to 7-August 2009
Leuven, Belgium

Open Source Software (OSS) is technically defined as software of which the source code is available to the public and hence is "open". Use, modification and redistribution of the code are possible by everyone as long as a number of terms and conditions are respected. FOSS (Free OSS) is OSS that is free of charge. It also means that anyone who redistributes the software, with or without changes, must pass along the freedom to further copy and change it. The term 'Copyleft' as opposed to 'Copyright' is sometimes used in this respect. Over the last few years the development and use of OSS and FOSS has gained importance within the community of scientists and other users dealing with geographic data and information. OSS4G and FOSS4G (for Geomatics) have become popular acronyms. However, the extremely dynamic and rather unstructured offer of (F)OSS4G-solutions, the lack of formal support and the widespread reluctance to engage in new lines of technology have so far prevented many community members to take the step to (F)OSS despite important potential benefits.

Setup and objectives
The course consists of two modules. The theme for the first module (7 course days) is *Building and exploiting geospatial databases by means of free and open source geospatial technology*. The overall application domain is *Physical land evaluation and*

land use planning although emphasis is on the technological concepts and functionalities rather than on the applications. This module is meant to provide participants with the opportunity to:
- Update knowledge about the concepts and functionalities of Geographic Information Systems;
- Update knowledge about Global Navigation Satellite Systems (GNSS) and Earth Remote Sensing for acquisition of positional and land cover data for further processing by means of geospatial technology;
- Acquire hands-on experience with two WINDOWS-based FOSS4G-packages: Quantum GIS and GRASS, complemented with the FOSS-Statistics-software R;
- Identify and evaluate strong and weak points of these and other FOSS4G-tools and ways to handle them, e.g., by QGIS-plug-in programming.

The emphasis of the second module (3 days) is on the *sharing and re-use of geodatasets*. The objectives are to:
- Update knowledge on spatial data infrastructures (SDI) as organizational agreements and technical setups for removing the barriers which prevent the access to and re-use of geodatasets;
- Review the technologies and FOSS-solutions which are applied within the context of SDI in order to make SDI-components interoperable and empower stakeholders;
- Identify and experience (semi-)operational SDI for discovering, evaluating, acquiring geodatasets and effectively using them;
- Receive an introduction in designing and implementing SDI-components.

Content
An overview of the course programme is presented below.

Format and target audience
This summer course is dispatched in a train-the-trainer format. It is designed to accommodate participants who are or want to become active in education and training regarding applied geomatics. Participants will be actively involved.

The first module of the training course is targeted to participants with a genuine interest in studying geographic reality and in solving land use problems using free and open source geomatics software solutions. Prior knowledge about concepts and applications of Geographic Information Systems and Earth Remote Sensing and some hands-on experience with geospatial data handling is recommended.

Participants to the 1st module will be perfectly qualified to proceed with the 2nd module on Spatial Data Infrastructures. This 2nd module is also appropriate for everyone who faces the problem of sub-optimal access to geodata and who wants to contribute to technically and/or administratively solving that problem. Typically, more experienced

users and managers of geodata and responsibles for geodata policy formulation and implementation will find high value in this part.

General conditions for participation
To be eligible for participation, candidates must:
- Have obtained a qualification of higher education (or equivalent through experience) in natural resource management and/or land use planning;
- Have experience in the use of WINDOWS-based computers;
- Be proficient in English. Candidates who have not had basic education in English or Dutch must provide proof of thorough and active English knowledge.

Participation fees

A distinction is made between 3 categories of participants. For each category, some specific conditions for participation and different fees apply:

1. The first category accommodates participants from developing countries (according to the OESO/DAC list used by VLIR-UOS), who do not have any link with North or South programmes supported by the Flemish Interuniversity Council (VLIR) nor with other programmes and projects supported by development cooperation services. **These candidates are eligible for a VLIR-UOS-STI-scholarship.** This scholarship covers participation fee, international flight from/to home country to Brussels, accommodation, local insurance, social activities and a contribution to daily subsistence expenditures. A total of 12 scholarships are available.

   > Acceptance of a scholarship implies participation in the full two-week training programme.

2. Candidates from developing countries, who are active in North or South programmes supported by VLIR or in other programmes and projects supported by development cooperation services, are accommodated by the second category. **They are NOT eligible for a VLIR-UOS-STI-scholarship** but benefit from a reduced participation fee. The fee for this group is 1.000 Euro for the full training. It is possible to participate in only one of the two training modules. Fees are computed proportionally to the number of days a module takes: 700 Euro for the 7-day module, 300 Euro for the 3-day module. VAT is not applicable. Travel, local transport, insurance, accommodation and subsistence must be covered by the participant or his sponsor (Total for two weeks, including participation fee, is estimated at 3.000 EUR). 8 seats are reserved for this category.

3. The participation fee for all other participants is 2.420 Euro for the full training or 1.694 Euro for the 7-day module and 726 Euro for the 3-day module. All fees include 21% VAT. 10 seats are reserved for this category.

Subscription
Final subscription date is **15ᵗʰ of April 2009**. Immediately after that date, all candidates will be evaluated and will be notified early may-2009 about their admittance to the summer course. Evaluation will pertain in the first place to the general and category-specific admission criteria. In the case too many candidates have applied for one or more of the 3 categories, selection will be based on gender ratio and geographical distribution. Early application is strongly recommended! The maximum number of participants is 30, two persons per PC.

Click here for a subscription form.

Practical arrangements
Campus accommodation at affordable cost will be available for all participants. For participants eligible for a VLIR-UOS-STI-scholarship, accommodation is included and flight tickets are booked and delivered by the organisers. After confirmation of admittance to the course all will be contacted for further practical arrangements.

More information and further updates regarding the programme will be published on the website .http://www.sadl.kuleuven.be/sadl/opleidingen.aspx.

Contact
- Ludo Engelen
        Tel: +32-16-32.97.32
        ludo.engelen@sadl.kuleuven.be

Training Location
Geo-Institute of the Katholieke Universiteit Leuven.
Celestijnenlaan 200E
BE-3001 Leuven-Heverlee

        http://www.sadl.kuleuven.be/sadl/contact.aspx (Click English)

Leuven and K.U.Leuven
Leuven is situated in Belgium at the very heart of Europe, a 20 minutes drive from Brussels. It is a perfect base for trips in Belgium and abroad. Leuven is an important hub in the Belgian railway network. In Leuven cycling is the quickest manner to get from one place to another. Leuven has about 90,000 inhabitants. Add to this 35,000 post-secondary and 11,000 high school students and it should come as no surprise that the streets are filled with young faces and that the city lives at a student's rhythm: hectic weeks at the beginning of the academic year and relatively calm during vacation and examination

periods. Leuven is a very dynamic city. With a lot to see and to do, you will never get bored.

Founded in 1425, the Katholieke Universiteit Leuven (K.U.Leuven) is the oldest university in the Low Countries and the oldest Catholic university in the world. Today K.U.Leuven is Belgium's largest university, consisting of 14 faculties, covering the complete range of scientific disciplines in the humanities, natural science and technology, bioscience and medicine, supported by about 8,000 staff members. These faculties provide high-quality interdisciplinary teaching to more than 35,000 students, 12% of which are international students from more than 120 countries.

Programme

Sunday 26-Jul-2009	Welcome activity
Module 1 (= 7 days)	**Building and exploiting geospatial databases by means of free and open source software tools**
Monday, 27-Jul-2009	- Land evaluation, land use planning, geomatics and FOSS4G - GIS is an information system and a technology - Modelling geographic reality with GIS; Geographic databases - Finding, downloading and installing the FOSS4G Quantum-GIS and the course database - First experiences with QGIS
Tuesday, 28-Jul-2009	- Viewing, querying and mapping - Transformation and management of geodatasets and their coordinate systems - Finding, downloading and installing the FOSS for statistics 'R' - Exercises with QGIS, its GRASS-plug-in and R
Wednesday, 29-Jul-2009	- Editing and creating geodatasets - Analysis of geodatasets - Exercises with QGIS, its GRASS-plug-in and R
Thursday, 30-Jul-2009	- Construction and analysis of terrain models - Exercises with QGIS, its GRASS-plug-in and R - Other user-created QGIS-plug-ins - Receiving and providing help and support regarding QGIS
Friday, 31-Jul-2009	- Earth remote sensing and GIS for land evaluation and land use planning - Images as geodatasets - GRASS in the FOSS4G-arena - Finding, downloading and installing GRASS - First experiences with GRASS
Saturday, 1-Aug-2009	- Free

Sunday, 2-Aug-2009	- Excursion or other social activity
Monday, 3-Aug-2009	- Displaying and exploring images using GRASS - Pre-processing of images - Exercises with GRASS
Tuesday, 4-Aug 2009	- Image classification - Change detection in images - Exercises with GRASS - Social activity
Module 2 (=3 days)	**Sharing and re-use of geodatasets by means of FOSS4G**
Wednesday, 5-Aug-2009	- Introduction to SDI - Web Mapping Services - Web feature Services
Thursday, 6-Aug-2009	- Data repositories for SDI - The FOSS PostGreSQL/PostGIS database management system
Friday, 7-Aug 2009	- Framework and practice of documentation and functional evaluation of FOSS-solutions for SDI related to environmental applications (in collaboration with the CASCADOSS – EU-FP6-project) - Farewell reception

Subscription Form

Yes, I am a candidate to participate in the Short Training Initiative on "Free and Open Source Geomatics tools for processing and sharing of geospatial data" from 27th of July to 7th August 2009

Name:
First Name:
Sex (M/F):
Date of birth:
Place of birth:
Civil status:
Language of education:
Address (street, street-number, zip-code, town, country):
E-mail address for routine contact:
Telephone number for routine contact:
Fax number for routine contact:
Education & Diplomas (Bachelor, Master, PhD, Other); Institution having delivered the diploma, Date of delivery of diploma:
What is your scientific or professional field? What experience have you gained in this field?
Name of employer or (for students) university:
Address of employer or (for students) university (street/zip code/town/country/e-mail):

Name and position of reference person at employer or promoter at university:
Address of reference person or promoter (street/zip code/town/country/e-mail):

To which category of participants do you belong? Please indicate clearly!
    1. I am from a developing country and I am eligible for a VLIR-UOS-STI-scholarship
    2. I am from a developing country and I am eligible for reduced participation fee
    3. I am not from a developing country

If you apply for category 2, give name and responsible of the project supported by VLIR or other Development Cooperation actor in which you are active:
Do you require accommodation? (y/n)

Which modules do you want to participate in? (all modules are compulsory for those applying for a VLIR-UOS-STI-scholarship)	
- Module 1 (27-jul to 4-aug-09)	
- Module 2 (5-aug to 7-aug-09)	

To complete the application, all candidates must add:
- A proof of English knowledge (if English or Dutch was not your language of education).

In addition, categories (1) and (2) must add:
- A letter stating your motivation;
- A letter of recommendation.

Send the subscription form and the necessary documents to:
K.U.Leuven
R&D Division SADL (Spatial Applications Division Leuven)
Celestijnenlaan 200E
B-3001 Heverlee, Belgium
For the attention of: Mr. Ludo Engelen

Or, in digital format (signed documents to be scanned) to:
ludo.engelen@sadl.kuleuven.be .