



A web portal for broadcasting services

**eBCD 2.0**  
Broadcasting Online

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International Telecommunication Union

WORLD  
RADIOCOMMUNICATION  
SEMINAR 2014

GENEVA, 8-12 DECEMBER 2014

[www.itu.int/go/ITU-R/WRS-14](http://www.itu.int/go/ITU-R/WRS-14)

Organised by:

150 1865 2015

ITU

ITU

ITU

The poster features a photograph of a fountain in Geneva, Switzerland, with a large ITU logo overlaid. The background is split into blue (top) and red (bottom) sections. The text is white and red. At the bottom, there is a QR code, a 150th anniversary logo (1865-2015), and three ITU logos.

# Agenda

- Portal overview
- The tools

eQry

ePub

eTools

myAdmin

- Future directions
- Hands-on exercises



# Overview

## Objectives

- Provide access to up-to-date broadcasting data and services
- Be closer to administrations with added-value services.
- Assist administrations in following plan modification procedures and related deadlines.
- Reduce workload on both BR and administrations
- Use rich and secure web2.0 technologies



[Portal description](#)

# Overview

**myAdmin**

"My own office  
@ ITU: opening ~24/7"



**eTools**

"My test calculations  
on-demand"



**ePub**

"Special sections,  
the publication day!"




**eQry**


"Fast search  
on Plans and MIFR"




# Overview



eTools  
ePub  
eQry

[TIES](#) users 



myAdmin

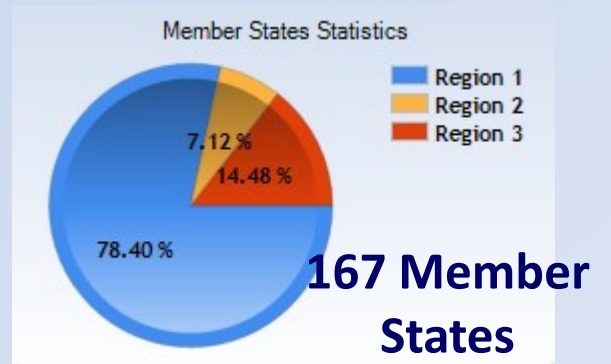
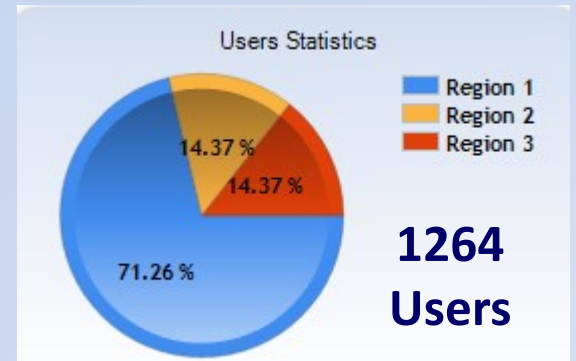
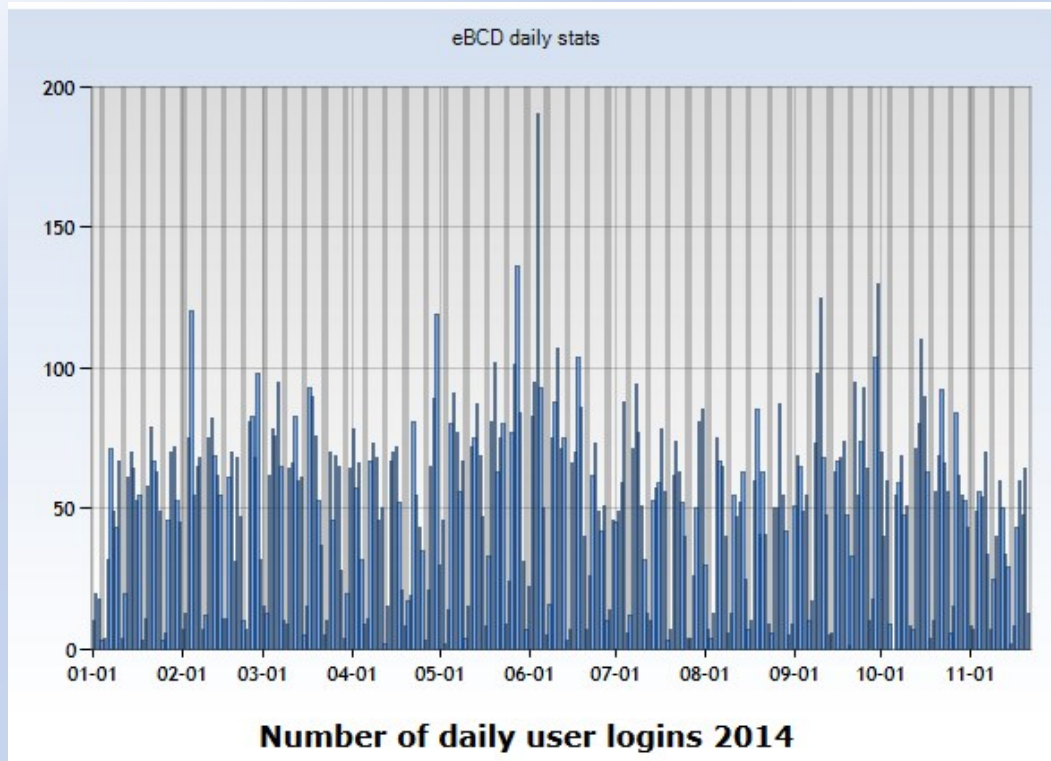
[TIES](#) users  
BCD authorization required

Tips:

- Check your [TIESaccount@itu.int](mailto:TIESaccount@itu.int) for eBCD 2.0 e-communications



# Overview

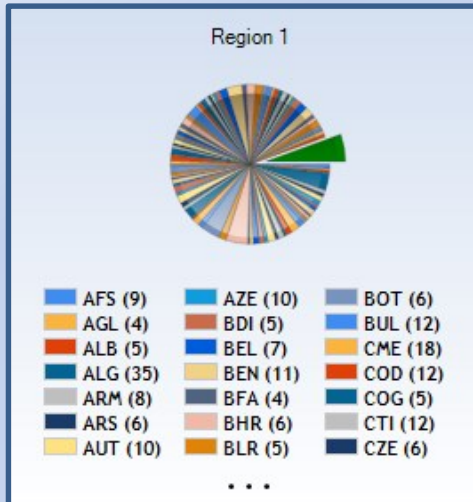


# Overview

## Region 1

991 Users

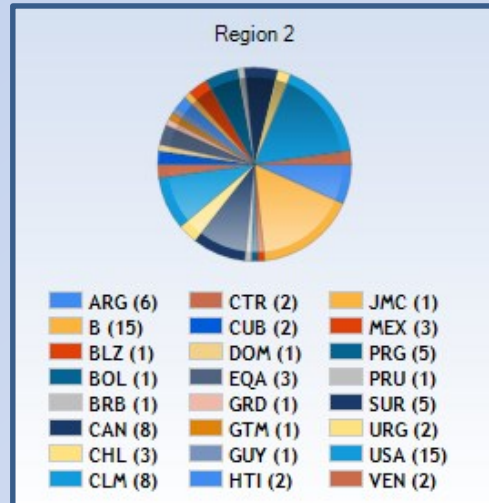
119 Member States



## Region 2

90 Users

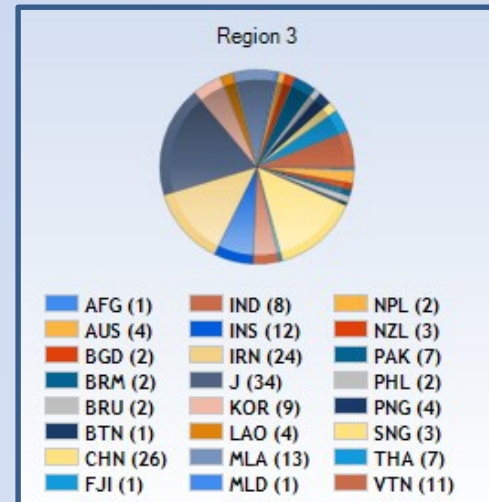
24 Member States



## Region 3

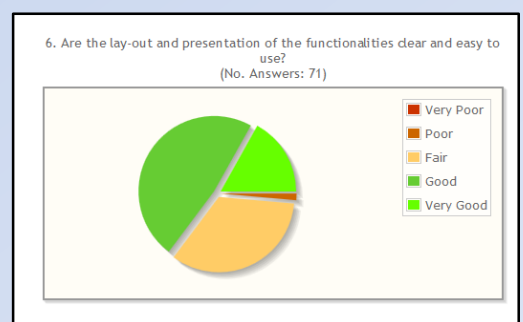
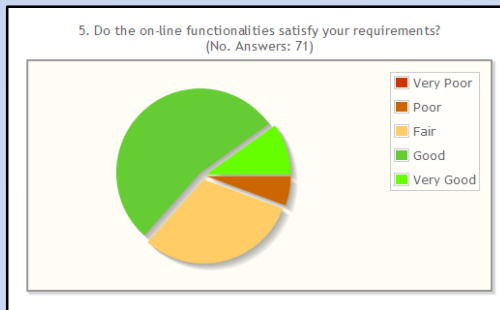
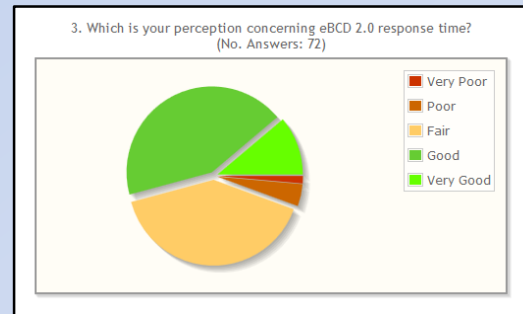
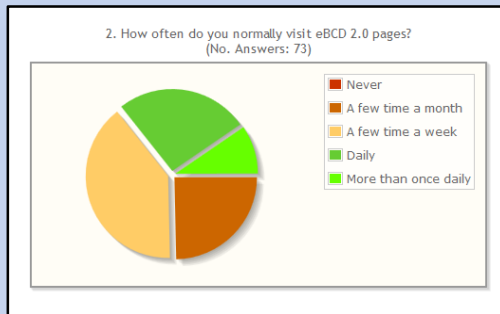
183 Users

24 Member States



# 2014 Survey

- 15 January - 1 March 2014
- 73 users from 22 Member States
- 30% replies (240 users consulted eBCD 2.0 in that period)
- New requested functionalities evaluated and partly already implemented (see [Survey results](#))

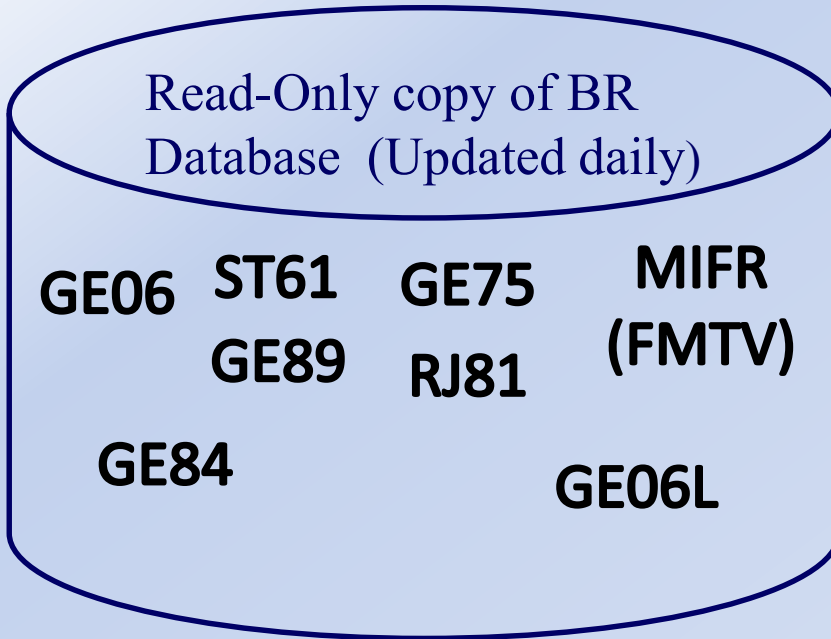






"Online search  
on Plans and MIFR"

# eQry



## Search by:

- Administration
- Geographic Area
- Frequency
- Administration Unique Identifier
- BR Identification number
- Status (Recorded/Published)
- Site/Allotment name

Contour ID, Plan Entry, Assignment code, TV chan., Frequency block



- More selection criteria for GE06
- Generate e-notice file (Export to SGML), not yet GE06D and LF/MF

Notice generation via TerRaNotices



*“Special Sections,  
the publication day!”*

# ePub

**Database Snapshots  
at publication date**

<b>GE06</b>	<b>ST61</b>	<b>GE75</b>	<b>MIFR</b>
	<b>GE89</b>	<b>RJ81</b>	<b>(FMTV)</b>
<b>GE84</b>			<b>GE06L</b>

## Search by:

- BR IFIC number
- Administration
  - My notifications
  - Notifications which affects me



"On-demand test calculations"

# eTools

## GE06

- **GE06D** Plan Modification (Coordination/Conformity)
- **GE06A** Coordination exam.
- **GE06D** Compatibility
- **GE06D** Compatibility (ATU)
- **GE06D** Compatibility (ASMG)

## RJ81



- Plan Modification
- What-if studies

## Propagation

- ITU-R P1812 Point to Point
- ITU-R P1812 Point to Area
- ITU-R P1546 Point to Area



## Notice Generation



- Notice Generation (Export to SGML output)



# eTools: e-notice submission

GE06 and RJ81



## Validate e-notice files

- Please use BR dedicated software tools for validations!

## Upload e-notices

- One file per administration on the same submission

## Complete submission



The ITU distributed processing infrastructure will treat your test submission and inform you at completion!



Check your TIES account!

[yourTIESname@ties.itu.int](mailto:yourTIESname@ties.itu.int)



# eTools: job processing



Test Packages: click to hide all

Job Id	Job Name	Job Status	Job Type	Date of Request	Date of Start Run	Date of Completion	Process	Elapsed Time (minutes)
<a href="#">6167</a>	degert_0	Success	Art4_PlanModification	11/12/2012 3:10:52 PM	11/12/2012 3:11:02 PM	11/12/2012 3:11:59 PM	BR-GE06-2_2	1
<a href="#">14157</a>	test	Success	Art4_PlanModification	11/20/2014 4:55:08 PM	11/20/2014 4:55:09 PM	11/20/2014 4:56:42 PM	CALC1_46	2
<a href="#">14145</a>	manara_0	Failed	Art4_PlanModification	11/19/2014 3:21:33 PM	11/19/2014 3:21:38 PM	11/19/2014 3:22:13 PM	CALC1_22	1

Test Packages 10717: click to show all

**Job summary** [Delete](#) [Share](#)

job id	job name	job status
10717	MOZ-Nairobi	Failed

**Job Input**

Adm	E-notice file	Number of Notices
MOZ	<a href="#">MOZ_19_07_2013.txt</a>	179

**Job Output: ERROR**

```
Problem parsing notices:
target not found for TB5 notice where t_adm_ref_id = MOZ1305361
target not found for TB5 notice where t_adm_ref_id = MOZ1305364
```

Please contact [brbcd@itu.int](mailto:brbcd@itu.int) if the error message is unclear

The Online Validation service would be soon integrated to provide clearer error messages





# eTools: privacy & job sharing

Jobs (e-notice and results) are owned and visible ONLY by submitter.



Facilitate coordination!

...you can now share them with other eBCD registered users!





# eTools: back-end infrastructure

- 28 independent processes currently available in ITU servers for calculations.



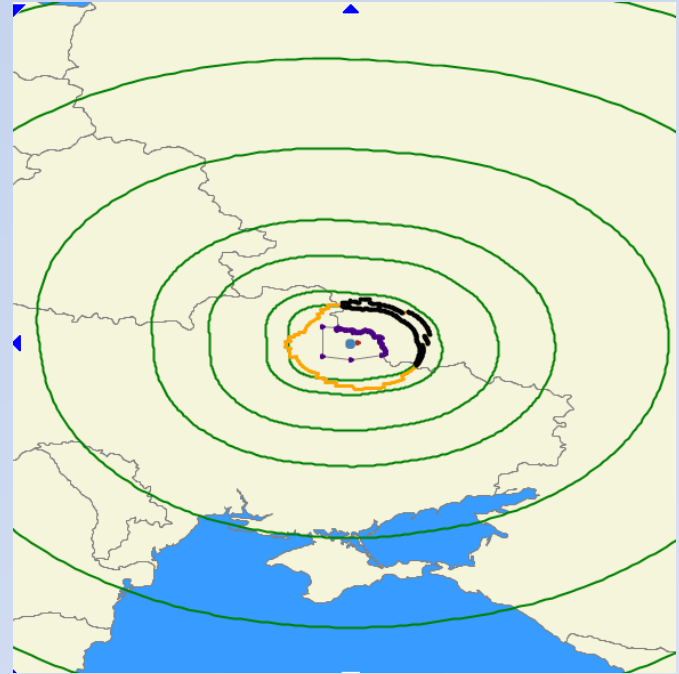
Processes distributed in such a way to minimize waiting time.



# GE06D Plan Modification



Coordination examination



Conformity examination





# Compatibility Analyses

Interference calculations between new notices (from electronic notification files) and existing plan notices and recorded assignments/allotments

**Job summary**      [Delete](#)    [Share](#)

job id	job name	job status
14168	test	Success

**Job Input**

Adm	E-notice file	Number of Notices
LBN	<a href="#">LBN_12846_IN_all.txt</a>	122

**Job Output**

Results available for one-month only!

Results is an MS Access mdb file for download to be visualized with GE06Calc.



# RJ81 Art. 4 what-if studies

[eTools Disclaimer](#) [eTools Documentations](#)

The processing system is currently **ONLINE** (28 processes available)

Please select the calculation type

**RJ81** **RJ81 what-if studies** **Beta Release**

## Job Input

Adm	E-notice file	Number of Notices
ARG	ARG_13493_IN.txt	2

## Job Output

Proposed Modification	Administrations with incompatibilities
760kHz_LU6	CHL B ARG
1140kHz_LU22	CHL ARG

Select the proposed modification	Select the affected protected station
All	All

Results sw\_50%\_A sw\_BC gw\_D gw\_N

ID Number	Frequency Assigned (kHz)	Country	Station Name	Class of Station	BR Serial Number Affected	Frequency Assigned Affected (kHz)	Country Affected	Station Name Affected	Class of Station Affected	RJ81 List Affected	Time of Operation	Azimuth (deg)	Distance (km)	Symbol	Protected Value (mV/m)	NFS (mV/m)	NFS or EU before (mV/m)	EU after (mV/m)	Note
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	0	14	Y	2.65	2.39	4.56	5.15	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	20	14	Y	2.65	2.39	4.56	5.15	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	40	14	Y	2.65	2.39	4.56	5.15	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	60	14	Y	2.65	2.41	4.56	5.16	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	80	14	Y	2.65	2.42	4.56	5.16	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	100	14	Y	2.65	2.44	4.56	5.17	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	120	14	Y	2.65	2.46	4.56	5.18	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	140	14	Y	2.65	2.48	4.56	5.19	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	160	14	Y	2.65	2.5	4.56	5.2	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	180	14	Y	2.65	2.51	4.56	5.21	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	200	14	Y	2.65	2.51	4.56	5.21	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	220	14	Y	2.65	2.5	4.56	5.2	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	240	14	Y	2.65	2.49	4.56	5.2	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	260	14	Y	2.65	2.48	4.56	5.19	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	280	14	Y	2.65	2.46	4.56	5.18	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	300	14	Y	2.65	2.44	4.56	5.17	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	320	14	Y	2.65	2.42	4.56	5.16	
1	760	ARG	LU6	B	090001717	760	B	PLANALTO	B	A	N	340	14	Y	2.65	2.4	4.56	5.16	
1	760	ARG	LU6	B	081010190	760	B	CANDELARIA	C	A	N	200	11	Y	4.18	3.63	7.25	8.11	



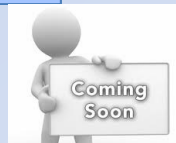
# ITU-R P1812 calculations

Propagation prediction model using terrain profile

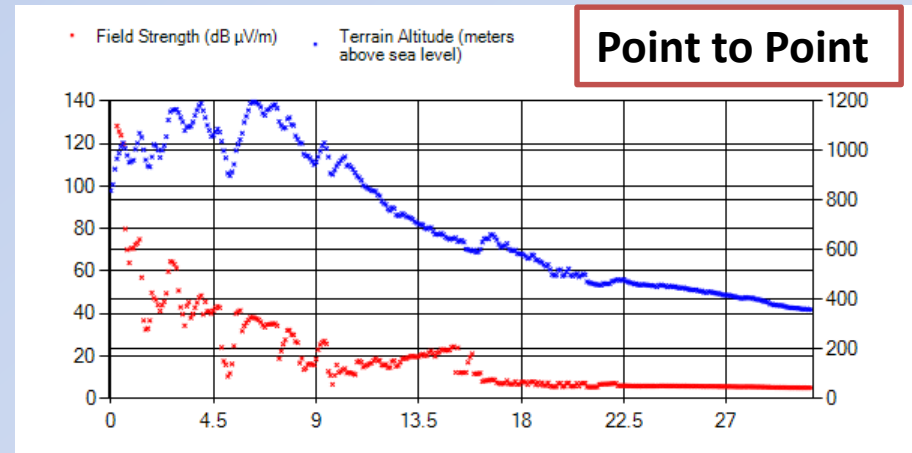
- 30 MHz -3 GHz
- 0.25 km – 3000 km
- 1% < time < 50%
- 1% < locations < 99%

SRTM3 terrain database  
3 arc-sec resolution (90 m)

still P1812-1



P1812-3(09-13)





# ITU-R P1546 calculations

## Propagation prediction model

- 30 MHz -3 GHz
- 1 km – 3000 km
- 1% < time < 50%
- 50% locations

Terrain database can be used to improve accuracy

Could also be adapted for location probabilities in the range (1%- 99%)



Beta Release!

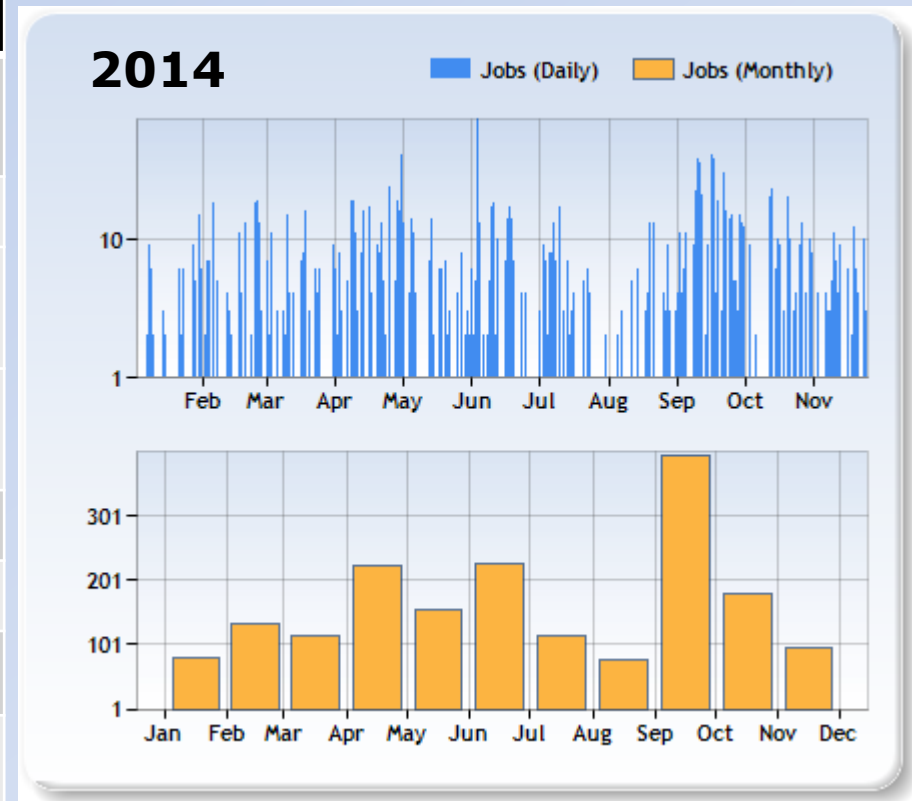
Point-to-area prediction of field strength for the broadcasting, land mobile, maritime mobile and certain fixed services (e.g. those employing point-to-multipoint systems)



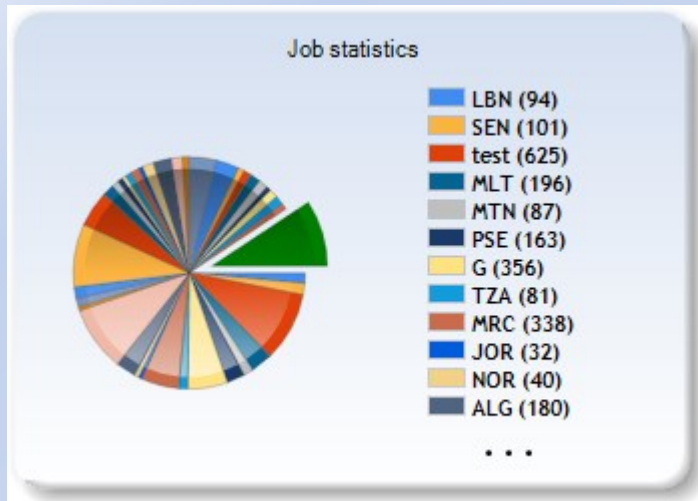


# eTools usage

Calculation Type	# Jobs
GE06D Plan Modification (Coordination/Conformity)	3555
GE06D Compatibility	2198
GE06D Compatibility (ATU)	1372
GE06D Compatibility (ASMG)	429
GE06A Coordination	296
ITU-R P1812 Point2Point	260
ITU-R P1812 Point2Area	146
RJ81 Plan modification	98

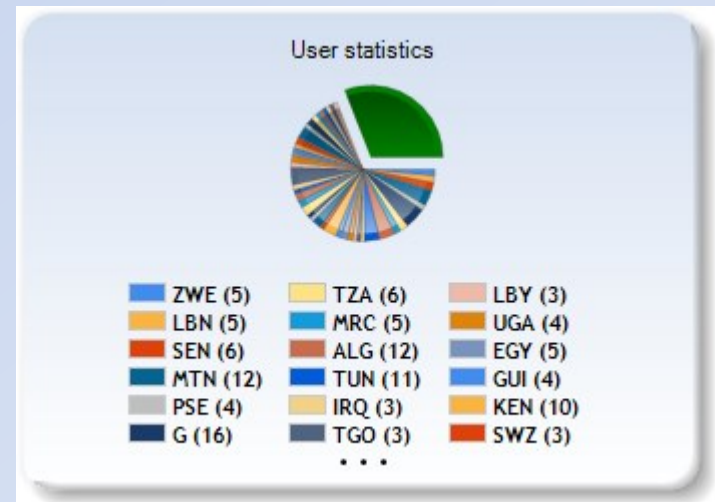


# eTools usage



118 Member States

377 Users





"My own office  
@ ITU: opening ~24/7"

# myAdmin

## My Mailbox

Communication between the BR and the Member State:

- GE06D notices not yet published (for specific cases)
  - notices under Conformity Review (30 days)
  - notices in the Waiting Review
- GE06D notices to be deleted in 30 days (in coordination since 2 years and 75 days)

Latest Special Sections containing  
my notifications

Latest Special Sections affecting  
my administration



*"My own office  
@ ITU: opening ~24/7"*

# myAdmin

## My Plan Statistics

Plan notices and assignments submitted by my Administration

Plan notices in coordination which affect my Administration

Notices under treatment ready for Part B



Coordination given/received by my Administration in the last 30 days

## My MIFR Statistics

MIFR assignments and notices (part 1, 2, 2B, 3) submitted by my Administration





*"My own office  
@ ITU: opening ~24/7"*



# myAdmin

## My Profile: service subscription

Send me an E-mail when new Special Sections containing my notifications or notifications affecting me are available on the web

Send me an E-mail when Coordination/Objection for my notices enters the database

# Future directions

- Add services in 
  - Assist administrations the planning of VHF-FM sound broadcasting services in accordance with the GE84 Agreement (GE84PLN evolution)
  - Implement Survey-requested functionalities
- Add services in 



# Future directions

- Please send us your eFeedback!
  - How can we improve our services?
  - What do you need?
- Please answer the [online survey](#) and help us improve

*“Thanks for your attention!”*



# Hands-on Exercise

Exercise no.1	eQry	Exercise no.2	ePub
1. Set selection criteria for plans/MIFR published notices or recorded assignments		1. Consult data concerning Special Sections of a plan of your choice	
2. Retrieve the data		a. Browse affected/notifying administrations b. Browse through summary information and notice/assignment details	
3. Browse through summary information and notice/assignment details		2. Select a BR Ific of choice	
4. Export the information to Excel		a. View published Special Sections if any b. View MIFR (FMTV) records if any	
5. View the data in Google Earth.		3. Select your Administration a. For the Plan of your choice, find the Special Sections which included your modifications or notifications affecting your administrations	



# Hands-on Exercise

Exercise no.3	Exercise no.4
<p data-bbox="46 401 678 429"><b>eTools</b></p> <ol data-bbox="46 429 678 1233" style="list-style-type: none"><li data-bbox="46 429 678 558">1. Read the Disclaimer to make sure you understand scope and limitations of the tool</li><li data-bbox="46 558 678 701">2. <b>Submit a job by uploading one or more notice files for a test calculations of your choice</b></li><li data-bbox="46 701 678 972">3. Display the results when the calculation completes (you may want to check your ties account, you may also want to set a forwarding rule to your normal office e-mail account)</li><li data-bbox="46 972 678 1100">4. <b>Share the job with one or more of your neighbors. Verify that he can access your test data.</b></li><li data-bbox="46 1100 678 1233">5. Delete a job if you are not more interested in it.</li></ol>	<p data-bbox="678 401 1881 429"><b>myAdmin</b></p> <ol data-bbox="678 429 1881 1233" style="list-style-type: none"><li data-bbox="678 429 1881 558">1. Log-in. If this is the first time a request for authorization will be sent to the BR. Verify your TIES account for communications concerning your granted access to this tool.</li><li data-bbox="678 558 1881 615">2. <b>Verify your Mail Box. Is there any message from the BR?</b></li><li data-bbox="678 615 1881 1100">3. Browse through your Plan Statistics.<ol data-bbox="794 615 1881 1100" style="list-style-type: none"><li data-bbox="794 615 1881 743">a. Look at your notices under treatment. Are there any objection or missing coordination?</li><li data-bbox="794 743 1881 1015">b. If so you may discuss one notification with colleagues from concerned Member States.<ol data-bbox="890 743 1881 1015" style="list-style-type: none"><li data-bbox="890 743 1881 872">i. In case of GE06 plan, look together at coordination contours.</li><li data-bbox="890 872 1881 1015">ii. You may want to submit via eTool P1812 calculations which may help to give you a more precise view of the situation considering terrain data.</li></ol></li><li data-bbox="794 1015 1881 1100">c. Look at notices under treatment which affect you.<ol data-bbox="890 1015 1881 1100" style="list-style-type: none"><li data-bbox="890 1015 1881 1100">i. Did you compete the coordination for all those notices?</li></ol></li></ol></li><li data-bbox="678 1100 1881 1233">4. <b>Browse through your MIFR statistics</b><ol data-bbox="794 1100 1881 1233" style="list-style-type: none"><li data-bbox="794 1100 1881 1233">a. <b>Do you have notices published in Part 1, 2, 2B or C?</b></li></ol></li></ol>