



## Implementation of an INSPIRE registry in France : state of progress

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# Implementation of an INSPIRE registry in France : State of progress

INSPIRE Conference 2018, Antwerp

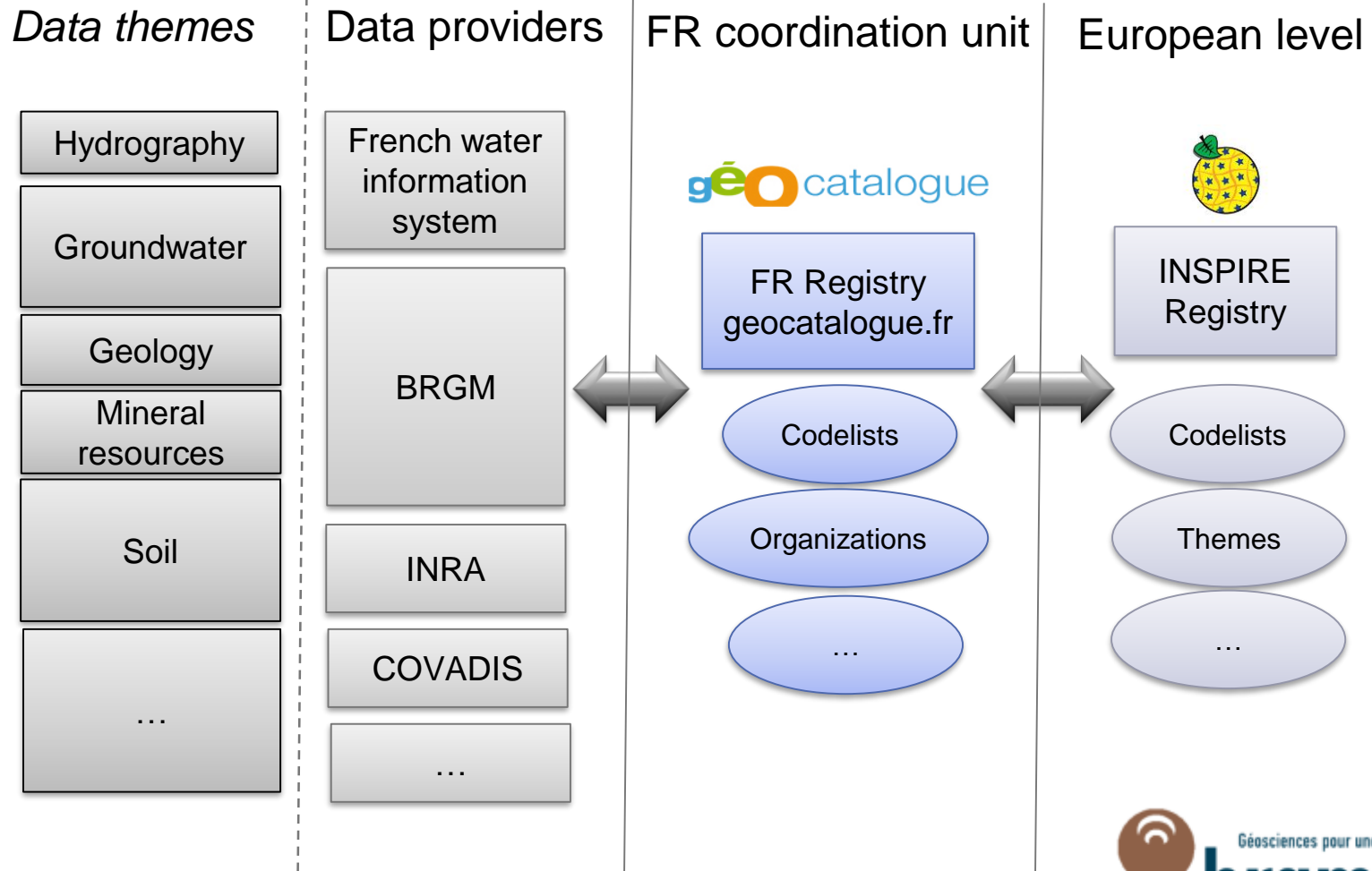
Etienne Taffoureaux



# Framework

- **Article 10** of the Directive requires that Member States ensure that **any information, including data, codes and technical classifications**, needed for compliance with the Directive **are made available to public authorities or third parties**.
- INSPIRE includes only one legal obligation related to registers: **extensions by data providers of the code lists** mandated in Commission Regulation (EU) No 1089/2010 on interoperability of spatial data sets and services need to be published in registers.
- However, MS and thematic communities are setting up **registers for other purposes** as well, e.g. to have **a single repository of all organizations** in a MS responsible for implementing INSPIRE, including their unique identifiers. In general, registers are useful in all situations where, by a reference code rather than free text, in data exchange, ambiguities or inconsistencies can be avoided. Also registers can facilitate the internationalization of user interfaces by providing multilingual labels
- **This led to create of a French Registry within geocatalogue.fr**. This will provide Data Publishers with access to code lists and other reference data and schemas required at a FR level and not located at other sources, e.g. the EC INSPIRE geoportal.

# Implementation of a FR registry : organization



# Implementation of a FR registry : roadmap

## > 2017 :

- Tests of two open source softwares :
  - Re3gistry (<https://joinup.ec.europa.eu/software/re3gistry>)
  - UKGovLD (<https://github.com/UKGovLD>)

## > 2018 :

- Implementation of FR registry based on Re3gistry (<http://registre.geocatalogue.fr>)
- Publication of codelists on geology theme (borehole, lithology, ...) and transport network (surface composition, etc.)
- Set up of registers for extended INSPIRE code lists (e.g. borehole purpose) and link to the INSPIRE register federation (<http://inspire-regadmin.jrc.ec.europa.eu/ro/>)

# Issues / needs for register management

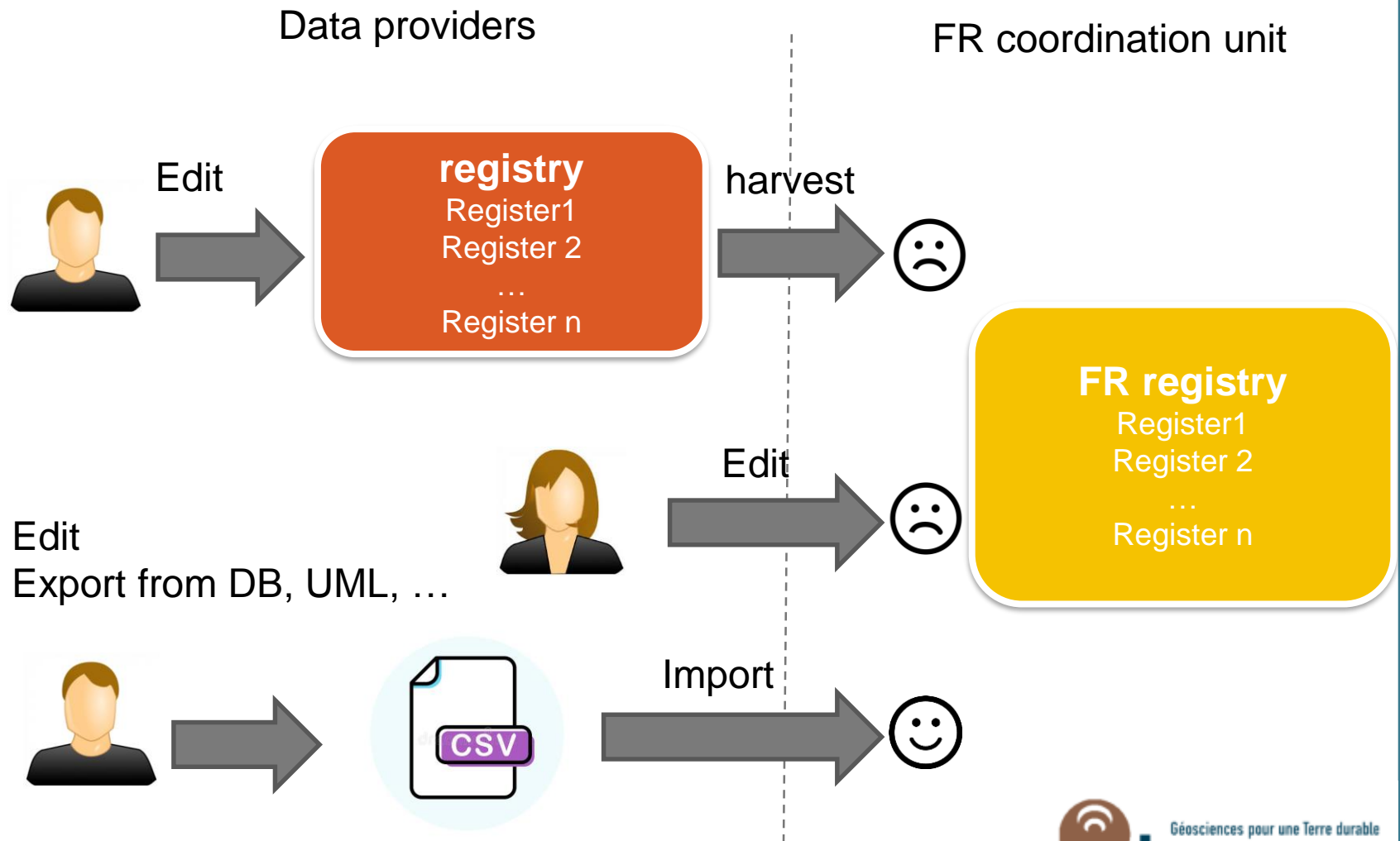
> An objective of the FR registry is to provide data providers a tool **to manage registers** (with URI « [registre.geocatalogue.fr/...](http://registre.geocatalogue.fr/) »)

- It needs editing functionalities and (simple) workflows for validate / publish codelists

> But some data providers are already managing registers in registries (with specific URI, e.g. [data.geoscience.fr/...](http://data.geoscience.fr/))

- FR registry can be seen as a « register federation »
- It need for synchronisation mechanisms (harvest or distributed search ?)

# Implementation of a FR registry : publication



# Issues / needs for register access and use

## > The registers have to be **searchable through a UI** but also **by applications** (« Machine to machine »)

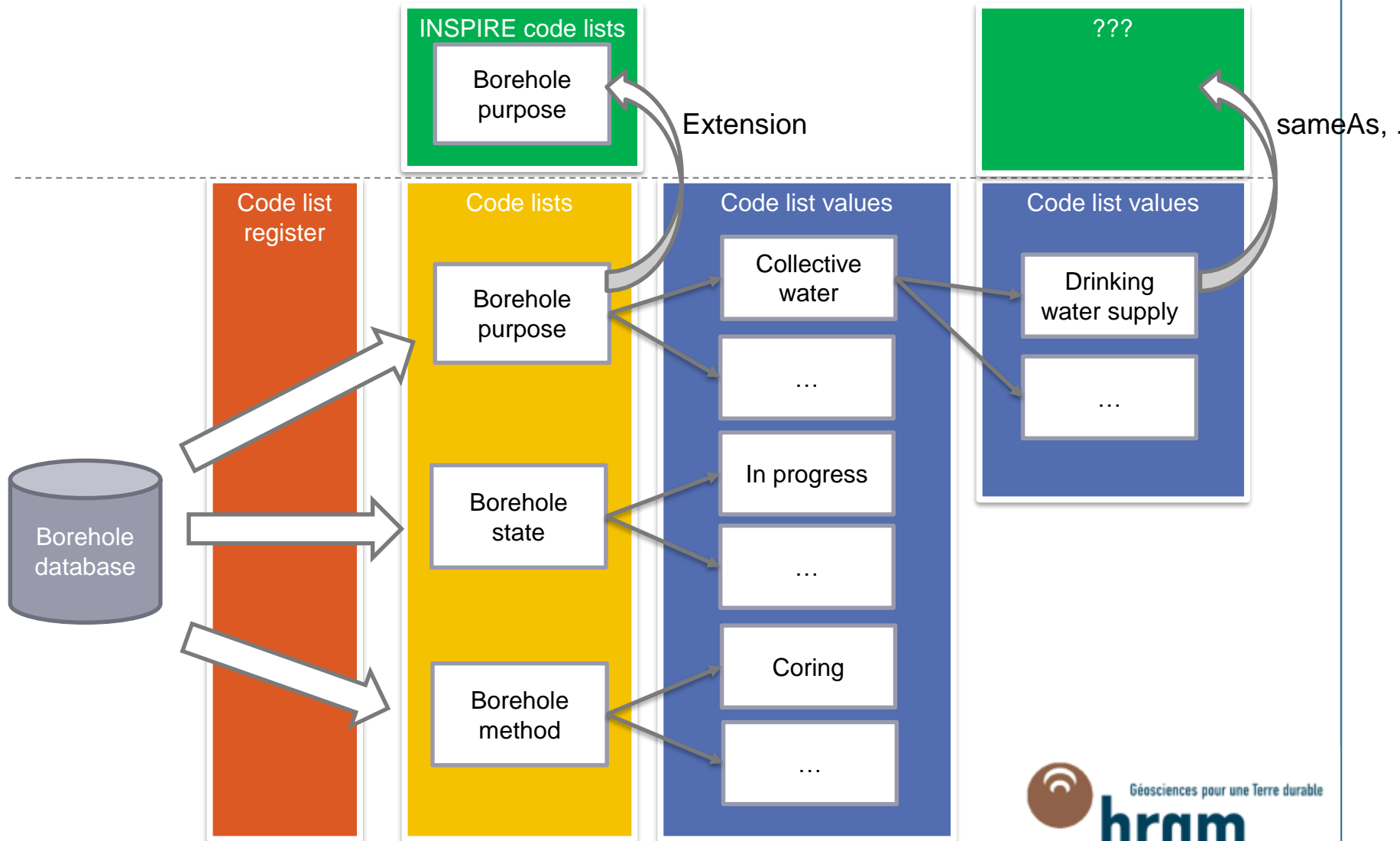
- e.g. to use custom UI, to select values in an editing form, ...
- Notifications when the content change (RSS, ...)
- Specify output format (RDF, ...) and protocol (SPARQL, ...)
- Performance issues

## > **We need to link registers with other vocabularies**

- Using a proper **linked data approach**
- Without re-declaring concepts across registers



# Structure of a register (« borehole »)



# Overview of a codelist in FR registry (« Borehole purpose »)

Thèmes:

Autres formats:



## Valeur de Liste de Codes

Filter Etiquette	Filter Parent	Filter Status
Etiquette	Parent	Status
ABRASIF	PRODUIT-BASE-INDUSTRIE	Validé
ABSORBANT	PRODUIT-BASE-INDUSTRIE	Validé
AEP	EAU-COLLECTIVE	Validé
AGRONOMIE	PRODUIT-BASE-INDUSTRIE	Validé
ANCIEN-AEP	EAU-COLLECTIVE	Validé
AQUIFERE	USAGES-EAU	Validé
BALLAST	VIABILITE	Validé
BOUE-FORAGE	PRODUIT-BASE-INDUSTRIE	Validé
CERAMIQUE	PRODUIT-BASE-INDUSTRIE	Validé
CHARGE	PRODUIT-BASE-INDUSTRIE	Validé
CHARGE-CAOUTCHOUC	CHARGE	Validé
CHARGE-PAPIER	CHARGE	Validé
CHAUFFAGE		Validé
CHAUSSÉE	VIABILITE	Validé
CHAUSSÉE-RIGIDE	CHAUSSÉE	Validé
CHAUX	LIANT	Validé
CIMENT	LIANT	Validé
COMBUSTIBLE	PRODUIT-BASE-INDUSTRIE	Validé
CONSTRUCTION		Validé
COUCHE-BASE	VIABILITE	Validé
COUVERTURE	CONSTRUCTION	Validé

# Overview of registries in the INSPIRE register federation

INSPIRE Register Federation

European Commission > INSPIRE > Register Federation > Registries

Registries Registers Relations Federated search Help Login

## Registries

Filter Label	Filter Publisher	Filter URI
Label	Publisher	URI
Système de publication de registres de l'IDG française	BRGM	<a href="http://registre.geocatalogue.fr/registry">http://registre.geocatalogue.fr/registry</a>
INSPIRE registry	European Commission, Joint Research Centre	<a href="http://inspire.ec.europa.eu/registry">http://inspire.ec.europa.eu/registry</a>
EEA Data Dictionary vocabularies	European Environment Agency	<a href="http://dd.eionet.europa.eu/vocabularies">http://dd.eionet.europa.eu/vocabularies</a>
Austrian INSPIRE registry	CCCA Data Centre	<a href="http://registry.inspire.gv.at">http://registry.inspire.gv.at</a>
INSPIRE Italia Registry	Agency for Digital Italy	<a href="http://registry.geodati.gov.it/registry">http://registry.geodati.gov.it/registry</a>
Lithological Classification Austria - extended values	Geological Survey of Austria	<a href="http://resource.geolba.ac.at/lithology/0">http://resource.geolba.ac.at/lithology/0</a>
IDEE registry	European Commission, Joint Research Centre	<a href="http://registro.idee.es/registry">http://registro.idee.es/registry</a>
IUGS CGI Geoscience Vocabularies for Linked Data	Geoscience Terminology Working Group (GTWG)	<a href="http://resource.geosciml.org/">http://resource.geosciml.org/</a>

Items per page: 10 Showing 1 to 8 of 8 entries

First Previous 1 Next Last

# Conclusion and perspectives

- > FR Registry (based on Re3gistry) respond to the obligation of publishing INSPIRE code lists**
- > But it have to connect to other tools (like ukgovld) to foster a linked data approach and not a tool approach on the registers and register federation topics**
- > And we need to improve the system in two ways :**
  - Register management (technical but also organizational issues)
  - Register access and use (technical issues)
- > Planned in 2018 – 2019 :**
  - Upgrade Re3gistry v1.3 to v2 (early 2019)
  - Publication of codelists in other themes (Utility and Government services, Land use, Land cover, etc.)

A geological map of the Monts d'Ardèche region, showing various geological units and faults. The map is oriented with North at the top. The units are labeled with codes such as h3c, h3a-b, h3a, h3b, h3d, h3e, h3f, h3g, h3h, h3i, h3j, h3k, h3l, h3m, h3n, h3o, h3p, h3q, h3r, h3s, h3t, h3u, h3v, h3w, h3x, h3y, h3z, h3aa, h3ab, h3ac, h3ad, h3ae, h3af, h3ag, h3ah, h3ai, h3aj, h3ak, h3al, h3am, h3an, h3ao, h3ap, h3aq, h3ar, h3as, h3at, h3au, h3av, h3aw, h3ax, h3ay, h3az, h3ba, h3bb, h3bc, h3bd, h3be, h3bf, h3bg, h3bh, h3bi, h3bj, h3bk, h3bl, h3bm, h3bn, h3bo, h3bp, h3bq, h3br, h3bs, h3bt, h3bu, h3bv, h3bw, h3bx, h3by, h3bz, h3ca, h3cb, h3cc, h3cd, h3ce, h3cf, h3cg, h3ch, h3ci, h3cj, h3ck, h3cl, h3cm, h3cn, h3co, h3cp, h3cq, h3cr, h3cs, h3ct, h3cu, h3cv, h3cw, h3cx, h3cy, h3cz, h3da, h3db, h3dc, h3dd, h3de, h3df, h3dg, h3dh, h3di, h3dj, h3dk, h3dl, h3dm, h3dn, h3do, h3dp, h3dq, h3dr, h3ds, h3dt, h3du, h3dv, h3dw, h3dx, h3dy, h3dz, h3ea, h3eb, h3ec, h3ed, h3ee, h3ef, h3eg, h3eh, h3ei, h3ej, h3ek, h3el, h3em, h3en, h3eo, h3ep, h3eq, h3er, h3es, h3et, h3eu, h3ev, h3ew, h3ex, h3ey, h3ez, h3fa, h3fb, h3fc, h3fd, h3fe, h3ff, h3fg, h3fh, h3fi, h3fj, h3fk, h3fl, h3fm, h3fn, h3fo, h3fp, h3fq, h3fr, h3fs, h3ft, h3fu, h3fv, h3fw, h3fx, h3fy, h3fz, h3ga, h3gb, h3gc, h3gd, h3ge, h3gf, h3gg, h3gh, h3gi, h3gj, h3gk, h3gl, h3gm, h3gn, h3go, h3gp, h3gq, h3gr, h3gs, h3gt, h3gu, h3gv, h3gw, h3gx, h3gy, h3gz, h3ha, h3hb, h3hc, h3hd, h3he, h3hf, h3hg, h3hh, h3hi, h3hj, h3hk, h3hl, h3hm, h3hn, h3ho, h3hp, h3hq, h3hr, h3hs, h3ht, h3hu, h3hv, h3hw, h3hx, h3hy, h3hz, h3ia, h3ib, h3ic, h3id, h3ie, h3if, h3ig, h3ih, h3ii, h3ij, h3ik, h3il, h3im, h3in, h3io, h3ip, h3iq, h3ir, h3is, h3it, h3iu, h3iv, h3iw, h3ix, h3iy, h3iz, h3ja, h3jb, h3jc, h3jd, h3je, h3jf, h3jg, h3jh, h3ji, h3jj, h3jk, h3jl, h3jm, h3jn, h3jo, h3jp, h3jq, h3jr, h3js, h3jt, h3ju, h3jv, h3jw, h3jx, h3jy, h3jz, h3ka, h3kb, h3kc, h3kd, h3ke, h3kf, h3kg, h3kh, h3ki, h3kj, h3kk, h3kl, h3km, h3kn, h3ko, h3kp, h3kq, h3kr, h3ks, h3kt, h3ku, h3kv, h3kw, h3kx, h3ky, h3kz, h3la, h3lb, h3lc, h3ld, h3le, h3lf, h3lg, h3lh, h3li, h3lj, h3lk, h3ll, h3lm, h3ln, h3lo, h3lp, h3lq, h3lr, h3ls, h3lt, h3lu, h3lv, h3lw, h3lx, h3ly, h3lz, h3ma, h3mb, h3mc, h3md, h3me, h3mf, h3mg, h3mh, h3mi, h3mj, h3mk, h3ml, h3mm, h3mn, h3mo, h3mp, h3mq, h3mr, h3ms, h3mt, h3mu, h3mv, h3mw, h3mx, h3my, h3mz, h3na, h3nb, h3nc, h3nd, h3ne, h3nf, h3ng, h3nh, h3ni, h3nj, h3nk, h3nl, h3nm, h3nn, h3no, h3np, h3nq, h3nr, h3ns, h3nt, h3nu, h3nv, h3nw, h3nx, h3ny, h3nz, h3oa, h3ob, h3oc, h3od, h3oe, h3of, h3og, h3oh, h3oi, h3oj, h3ok, h3ol, h3om, h3on, h3oo, h3op, h3oq, h3or, h3os, h3ot, h3ou, h3ov, h3ow, h3ox, h3oy, h3oz, h3pa, h3pb, h3pc, h3pd, h3pe, h3pf, h3pg, h3ph, h3pi, h3pj, h3pk, h3pl, h3pm, h3pn, h3po, h3pp, h3pq, h3pr, h3ps, h3pt, h3pu, h3pv, h3pw, h3px, h3py, h3pz, h3qa, h3qb, h3qc, h3qd, h3qe, h3qf, h3qg, h3qh, h3qi, h3qj, h3qk, h3ql, h3qm, h3qn, h3qo, h3qp, h3qq, h3qr, h3qs, h3qt, h3qu, h3qv, h3qw, h3qx, h3qy, h3qz, h3ra, h3rb, h3rc, h3rd, h3re, h3rf, h3rg, h3rh, h3ri, h3rj, h3rk, h3rl, h3rm, h3rn, h3ro, h3rp, h3rq, h3rr, h3rs, h3rt, h3ru, h3rv, h3rw, h3rx, h3ry, h3rz, h3sa, h3sb, h3sc, h3sd, h3se, h3sf, h3sg, h3sh, h3si, h3sj, h3sk, h3sl, h3sm, h3sn, h3so, h3sp, h3sq, h3sr, h3ss, h3st, h3su, h3sv, h3sw, h3sx, h3sy, h3sz, h3ta, h3tb, h3tc, h3td, h3te, h3tf, h3tg, h3th, h3ti, h3tj, h3tk, h3tl, h3tm, h3tn, h3to, h3tp, h3tq, h3tr, h3ts, h3tt, h3tu, h3tv, h3tw, h3tx, h3ty, h3tz, h3ua, h3ub, h3uc, h3ud, h3ue, h3uf, h3ug, h3uh, h3ui, h3uj, h3uk, h3ul, h3um, h3un, h3uo, h3up, h3uq, h3ur, h3us, h3ut, h3uu, h3uv, h3uw, h3ux, h3uy, h3uz, h3va, h3vb, h3vc, h3vd, h3ve, h3vf, h3vg, h3vh, h3vi, h3vj, h3vk, h3vl, h3vm, h3vn, h3vo, h3vp, h3vq, h3vr, h3vs, h3vt, h3vu, h3vv, h3vw, h3vx, h3vy, h3vz, h3wa, h3wb, h3wc, h3wd, h3we, h3wf, h3wg, h3wh, h3wi, h3wj, h3wk, h3wl, h3wm, h3wn, h3wo, h3wp, h3wq, h3wr, h3ws, h3wt, h3wu, h3wv, h3ww, h3wx, h3wy, h3wz, h3xa, h3xb, h3xc, h3xd, h3xe, h3xf, h3xg, h3xh, h3xi, h3xj, h3xk, h3xl, h3xm, h3xn, h3xo, h3xp, h3xq, h3xr, h3xs, h3xt, h3xu, h3xv, h3xw, h3xx, h3xy, h3xz, h3ya, h3yb, h3yc, h3yd, h3ye, h3yf, h3yg, h3yh, h3yi, h3yj, h3yk, h3yl, h3ym, h3yn, h3yo, h3yp, h3yq, h3yr, h3ys, h3yt, h3yu, h3yv, h3yw, h3yx, h3yy, h3yz, h3za, h3zb, h3zc, h3zd, h3ze, h3zf, h3zg, h3zh, h3zi, h3zj, h3zk, h3zl, h3zm, h3zn, h3zo, h3zp, h3zq, h3zr, h3zs, h3zt, h3zu, h3zv, h3zw, h3zx, h3zy, h3zz. The map is overlaid with a grid. The text "Thank you for your attention" is written in large black font across the center. The text "Etienne Taffoureau, BRGM" and "e.taffoureau@brgm.fr" is written in smaller black font on the right side. The BRGM logo and tagline "Géosciences pour une Terre durable" are in the bottom right corner. The text "INSPIRE Conference 2018, Antwerp, 2018-09-20" is in the bottom left corner.

# Thank you for your attention

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