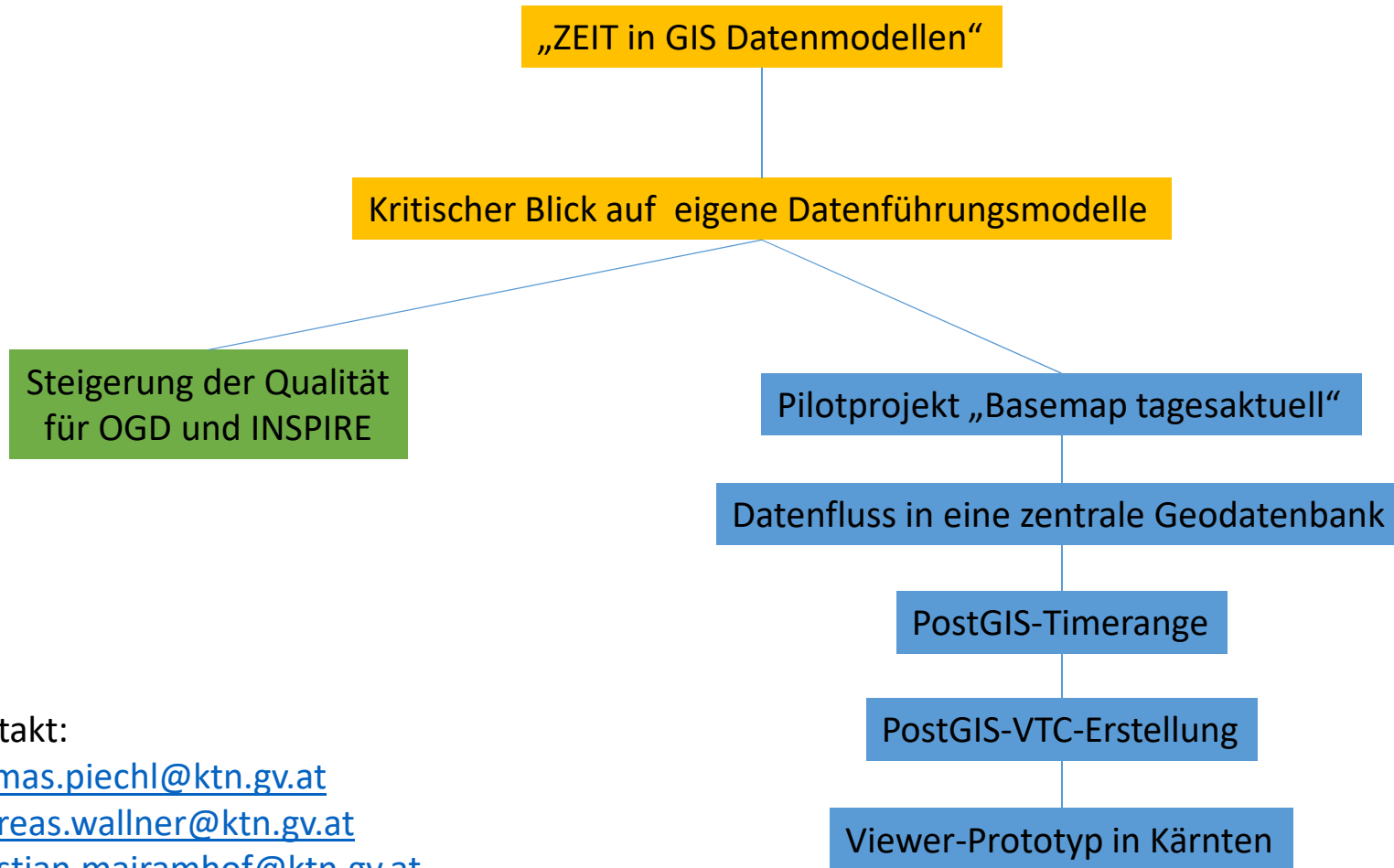


## Zeit und GIS



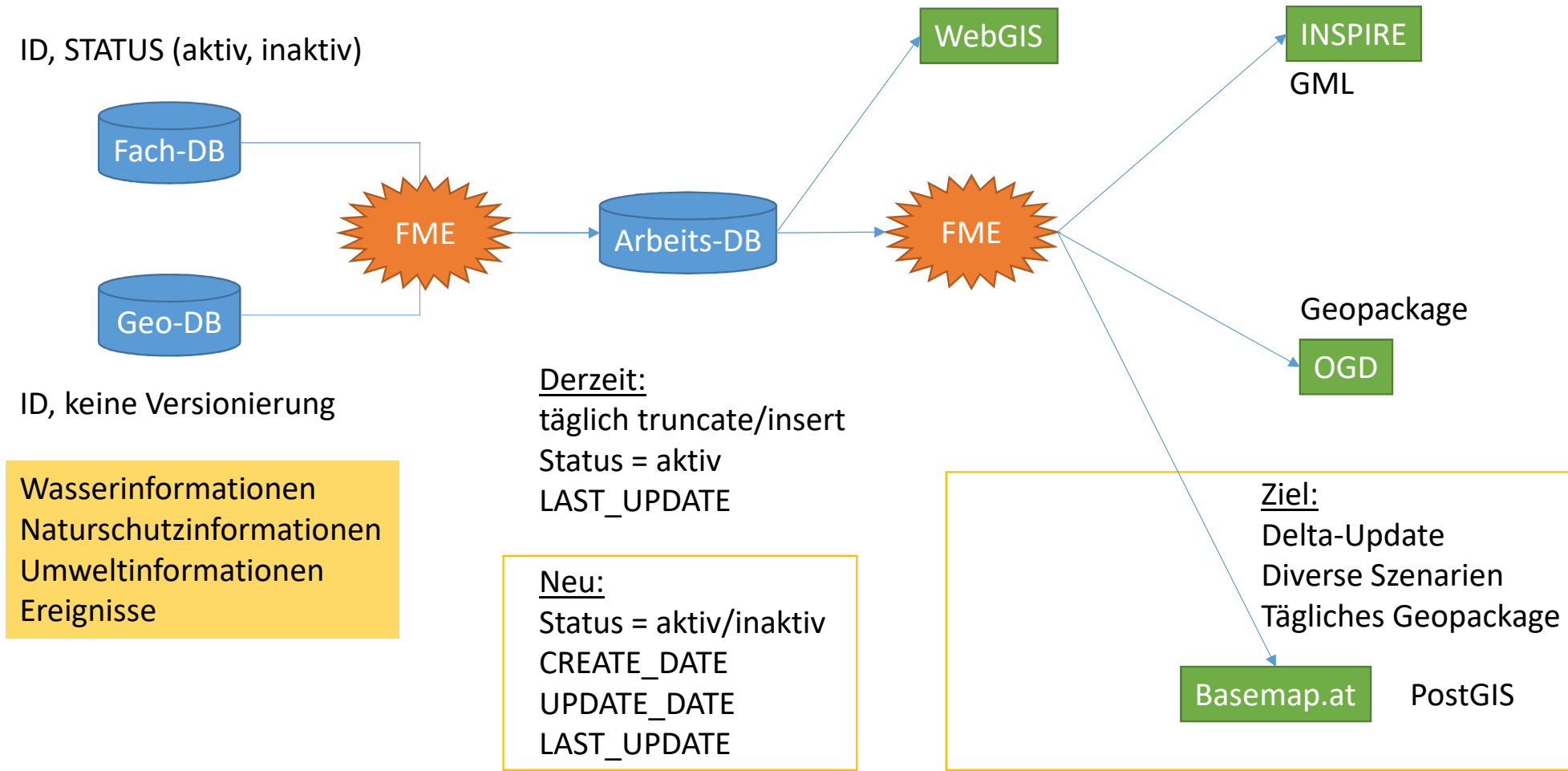
Kontakt:

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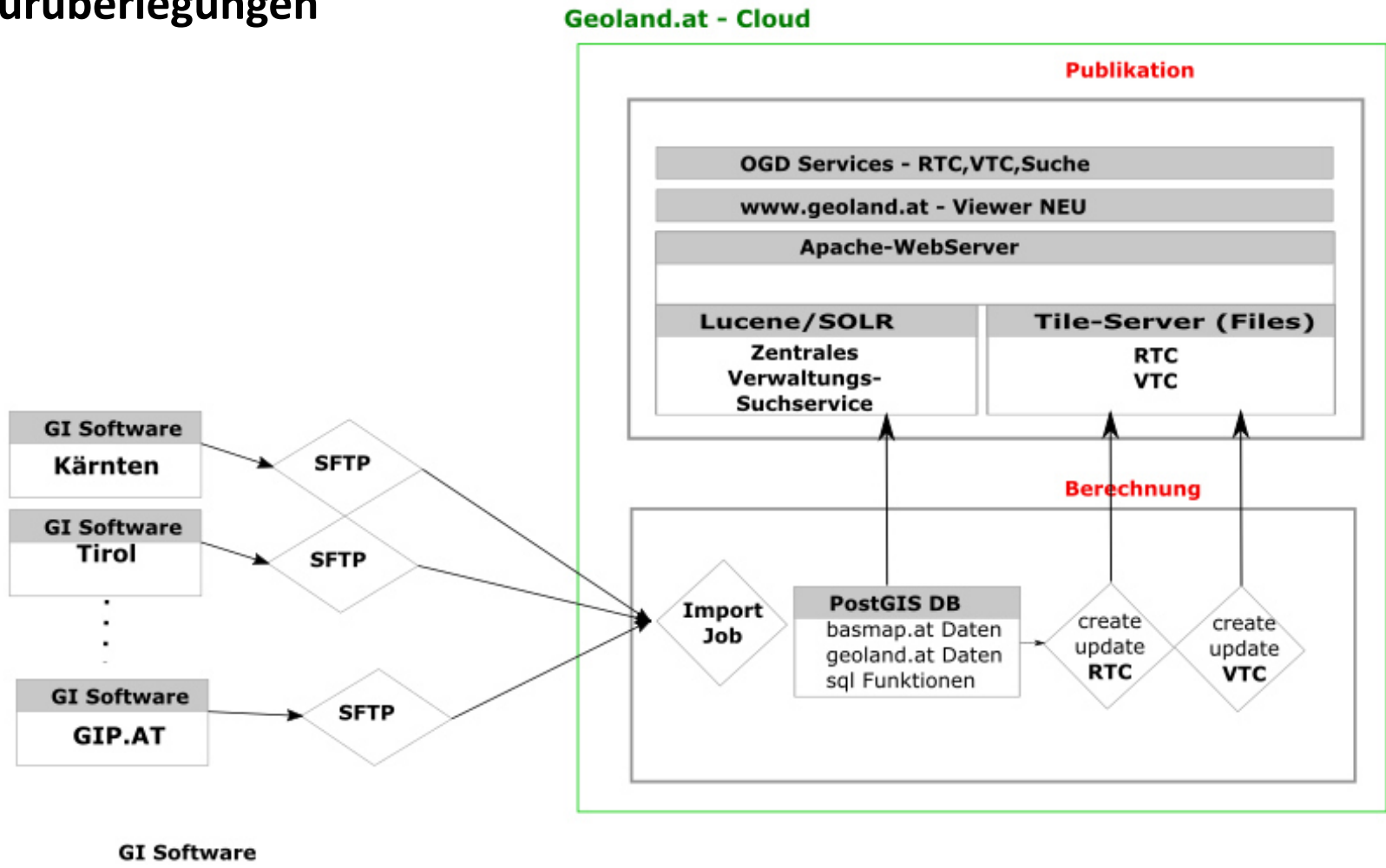
[andreas.wallner@ktn.gv.at](mailto:andreas.wallner@ktn.gv.at)

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# Kritischer Blick auf eigene Datenmodelle



# Architekturüberlegungen



Nutzung der bestehenden SFTP Kommunikationsinfrastruktur

# PostGIS – Neuer Feldtyp Timerange

## Erzeugung UUID und TimeRange

```
----- Vorbereitung -----  
-- uuid extention  
CREATE EXTENSION "uuid-oss";  
  
-- UUID erzeugen  
ALTER Table basemap_tagesaktuell.gebaeude_ktn_1000 Add column perm_id uuid;  
UPDATE basemap_tagesaktuell.gebaeude_ktn_1000 SET perm_id = uuid_generate_v4();  
  
-- valid_from_to erzeugen  
ALTER Table basemap_tagesaktuell.gebaeude_ktn_1000 Add column valid_from_to tstzrange;  
UPDATE basemap_tagesaktuell.gebaeude_ktn_1000 SET valid_from_to = tstzrange(now(), NULL, '[')');  
  
-- Automatischen Primary Key erzeugen (für tabelleneintraege)  
ALTER TABLE basemap_tagesaktuell.gebaeude_ktn_1000 ADD Column id SERIAL PRIMARY KEY;
```

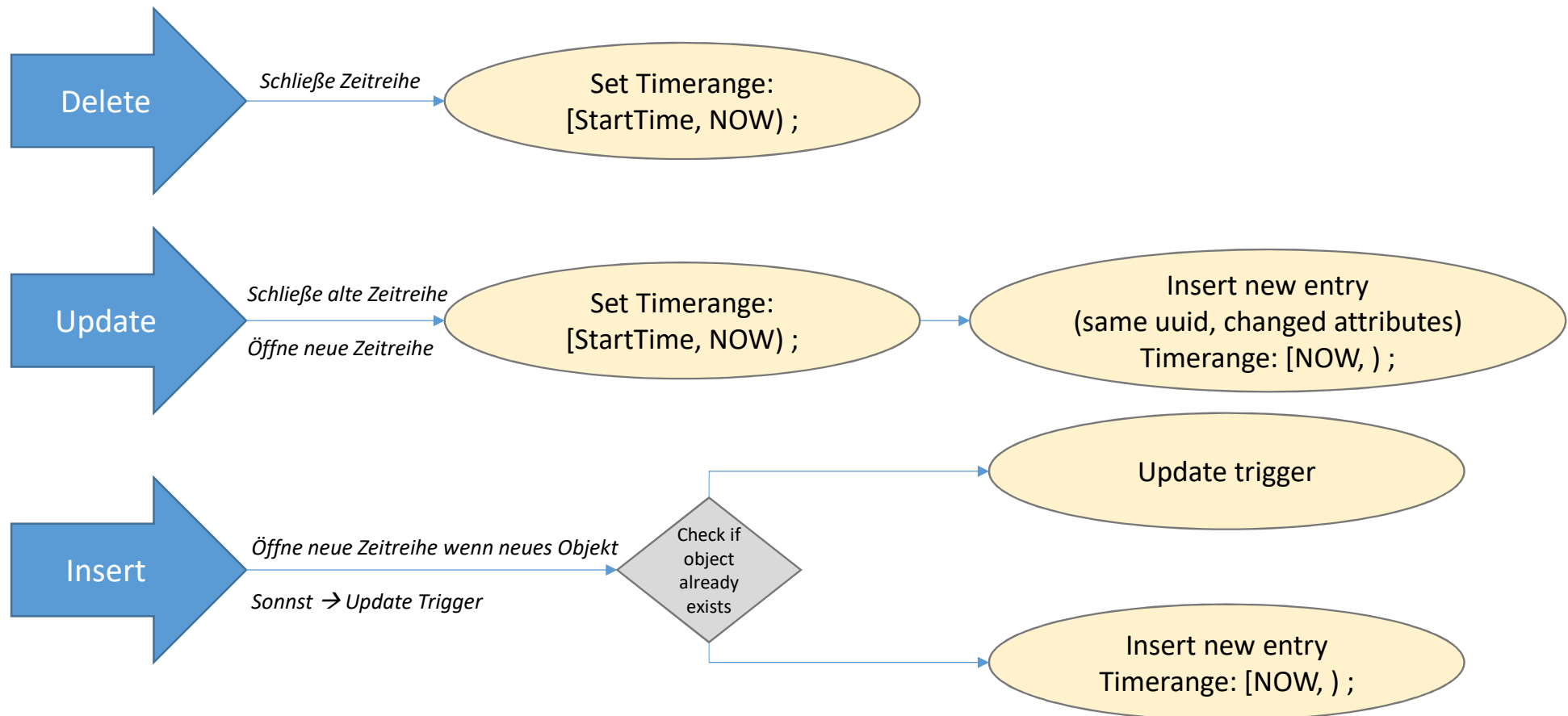
id [PK] integer	objectid integer	geom geometry	quelle text	perm_id uuid	valid_from_to tstzrange
1	24	01060000201A7...	BEV	7eacc5da-f129-4579-bf1a-ab206857a3ff	["2022-01-18 09:14:58.657913+01";"2022-01-18 09:45:11.52942+01")
2	886	01060000201A7...	BEV2	7eacc5da-f129-4579-bf1a-ab206857a3ff	["2022-01-18 09:45:11.52942+01";"2022-01-18 09:46:14.780091+01")
3	887	01060000201A7...	BEV3	7eacc5da-f129-4579-bf1a-ab206857a3ff	["2022-01-18 09:46:14.780091+01")

Unterschiedliche Attribute ABER gleiche UUID

Nicht mehr Gültig

Gültig

## Timerange – Datenbanktrigger



## Timerange – Update Trigger

```

----- trigger funktion fuer update -----
CREATE OR REPLACE FUNCTION gebaeude_ktn_1000_update() RETURNS trigger AS
$$
BEGIN
    UPDATE basemap_tagesaktuell.gebaeude_ktn_1000
    SET
        objectid = OLD.objectid,
        geom = OLD.geom,
        quelle = OLD.quelle,
        funktion = OLD.funktion,
        aktdate = OLD.aktdate,
        fmedate = OLD.fmedate,
        col = OLD.col,
        shape_area = OLD.shape_area,
        shape_len = OLD.shape_len,
        perm_id = OLD.perm_id,
        valid_from_to = tstzrange(lower(valid_from_to), current_timestamp)
    WHERE valid_from_to @> current_timestamp AND perm_id = OLD.perm_id;

    -- delete unwanted copy
    DELETE FROM basemap_tagesaktuell.gebaeude_ktn_1000
    WHERE valid_from_to @> current_timestamp AND perm_id = OLD.perm_id;

    INSERT INTO basemap_tagesaktuell.gebaeude_ktn_1000
    (objectid, geom, quelle, funktion, aktdate, fmedate, col, shape_area, shape_len, perm_id, valid_from_to)
    VALUES
    (NEW.objectid, NEW.geom, NEW.quelle, NEW.funktion, NEW.aktdate, NEW.fmedate, NEW.col, NEW.shape_area, NEW.shape_len, NEW.perm_id,
    tstzrange(current_timestamp, NULL));

    RETURN NEW;

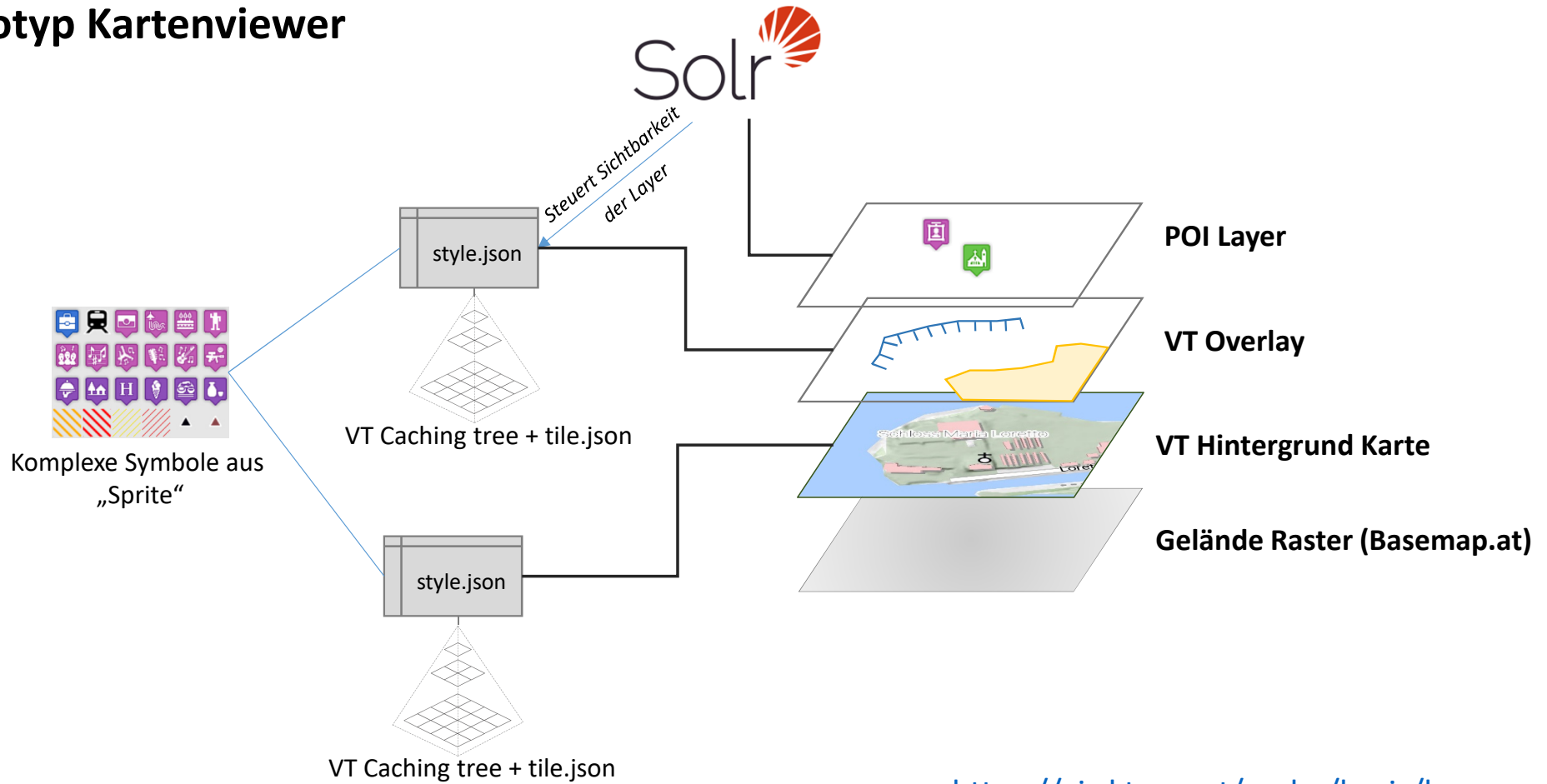
END;
$$
LANGUAGE plpgsql;

CREATE TRIGGER gebaeude_ktn_1000_update_trigger
AFTER UPDATE ON basemap_tagesaktuell.gebaeude_ktn_1000
FOR EACH ROW EXECUTE PROCEDURE gebaeude_ktn_1000_update();

-- beispiel update:
UPDATE basemap_tagesaktuell.gebaeude_ktn_1000
set quelle = 'BEV2'
WHERE perm_id = 'e7e78a0f-173f-4da3-9058-886f49bb7cad' AND valid_from_to @> current_timestamp;

```

# Prototyp Kartenviewer



<https://gis.ktn.gv.at/suche/kagis/browse>  
„Karte erkunden“