**Can land intensification and abandonment in Latvia be linked to key socio-economic events?**

* Socio-politico-economic 🡪 SPE events

What does *linked* mean?

* Is there a significant change of the area covered by each land-use type due to the event with it clearly happening *because* of the event?
  + As in, do SPE events cause land use change?
    - Well, yes this is obvious BUT
    - **Are SPE events the main driver of land-use change in Latvia?**

**Are SPE events the main driver of land-use change in Latvia?**

* Main driver quantifiably indicated by a strong directional shift towards different land-use directly following (within three years) an SPE event
* Would indicate other drivers are not as strong

What we know

* They are linked
* SPE events do cause land-use change

**But what is the strength and magnitude of this change and can it be seen on a country scale?**

**🡪 Are SPE events the main driver of the strength and magnitude of land-use change in Latvia on a country scale?**

* Country is good but if this is not evident it could turn into a regional study i.e. not evident on a country scale but there are these key transitions in these areas 🡪 then look at the areas and say well, this may be due to another aspect like e.g. urbanization so therefore the SPE event was not the only driver
  + Obviously, urbanization can be linked to some SPE events but it in itself is not directly caused by the SPE event (that would turn it into more social science)

So therefore, in this case, SPE events are solely defined by the change in economic and political status 🡪 do changing regulations have an impact on the whole countries land-use practices and is this evident on a country scale – does this impact all areas equally and evenly?

* Actually, social stuff is pretty linked to these events, moreover the events leave out ENVIRONMENTAL causes of land-use change

Question 1: Is there a clear link between key socio-economic events and land-use change in

Latvia?

🡪

**Question: Is there quantifiable, country-scale land-use change following SPE events in Latvia?**

* So, for this question, I need to examine the direct before and after (3 years before, 3 years after)
  + Can play with different time periods
* Area of each land use type before and after 🡪 statistical difference or no? large strength and direction or no?
  + Could also do it with the number of pixels of each type
  + Bar chart

**Question 2: Is the strength and direction of land-use change different among extensive,**

**intensive and abandoned land-use types?**

* So, this would be line graphs through time, a larger time scale than to answer the question above
* So here we would need the areas but also the number of pixels/types of each pixel to see what’s changing into what

**Question 3: Is there a time lag between socio-economic events and the occurrence of land-use change? Does this differ between land-use type?**

* Use the same data as above and see if there was a “turning point” at any year following an SPE event

Data I need:

* For each classification (mine and CORINE):
  + For each study year:
    - Area of total land in each land-use category
    - Number of pixels in each land-use category
    - Accuracy and error tests for the classifier