



REPUBLIC OF SLOVENIA  
MINISTRY OF THE ENVIRONMENT AND SPATIAL PLANNING

# Reflection on GMO cultivation in Slovenia towards Sustainable Development

***Martin Batič***

***Ministry of the Environment and Spatial Planning***

CONFERENCE

*„How to maintain GMO – free agriculture in Europe“*

*Socio – economic considerations of GM crops*

*16 – 17 April 2015, Budapest, Hungary*

# Reflection on GMO cultivation (1)



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## ✓ RESPONSIBLE MINISTRIES FOR GMOs:



- **Ministry of the Environment and Spatial Planning (MESP)** - (contained use, deliberate release and placing GMOs on the market);



- **Ministry of Agriculture, Forestry and Food (MAFF)** – (coexistence and cultivation);
  - The Administration of Republic Slovenia for Food Safety, Veterinary and Plant Protection (AFSVPP) – (GM Food/Feed)



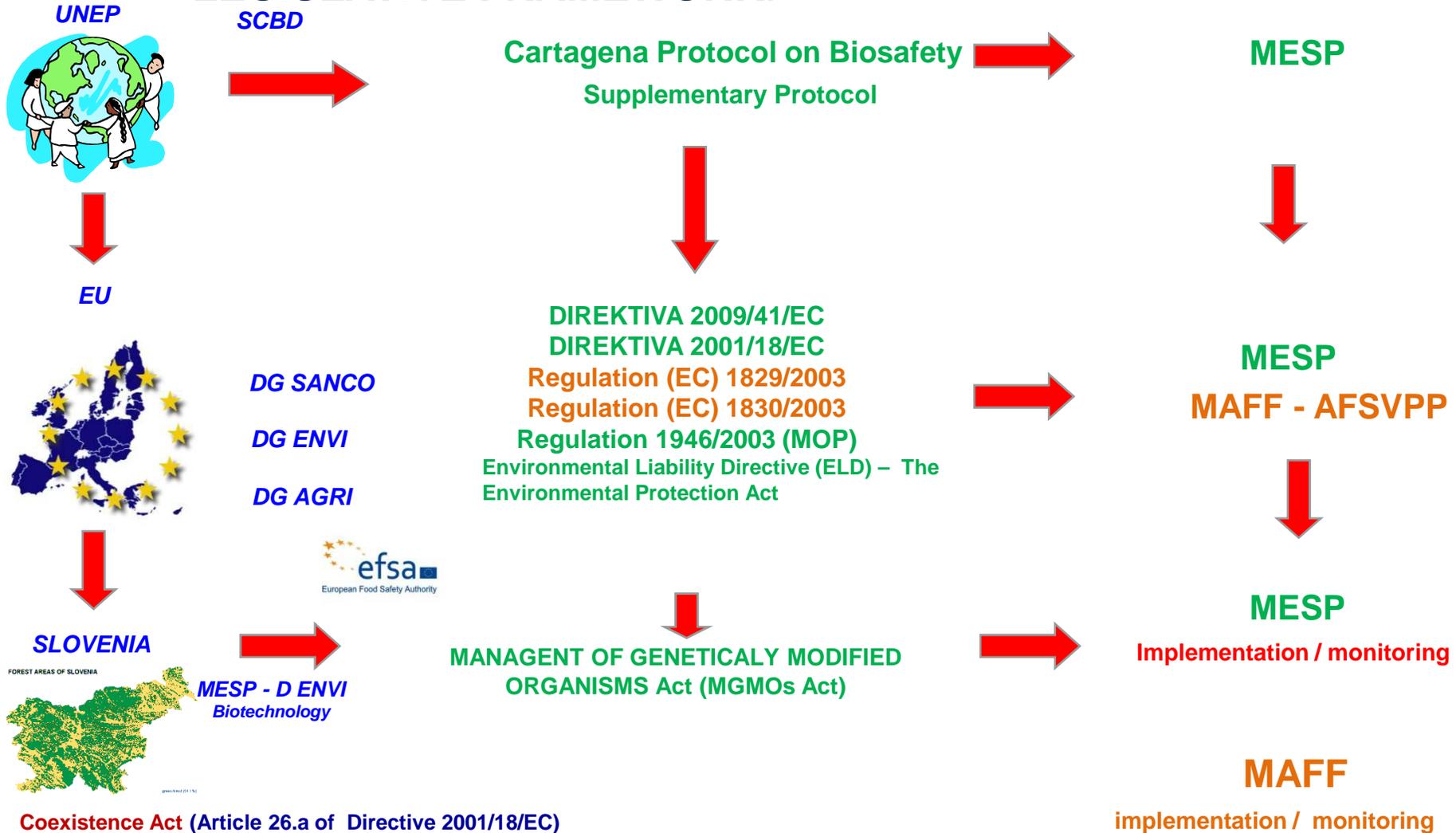
- **Ministry of Health (MH)** – (medicines);

# Reflection on GMO cultivation (2)



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## ✓ LEGISLATIVE FRAMEWORK:



Coexistence Act (Article 26.a of Directive 2001/18/EC)

**DIRECTIVE 2015/412** amending Directive 2001/18/EC as regards the possibility for the Member States to restrict or prohibit the cultivation of genetically modified organisms (GMOs) in their territory [Article 26.a (amendment), 26.b (cultivation) (phase 1 and 2) and 26.c (transitional measures)]

**MAFF**

implementation

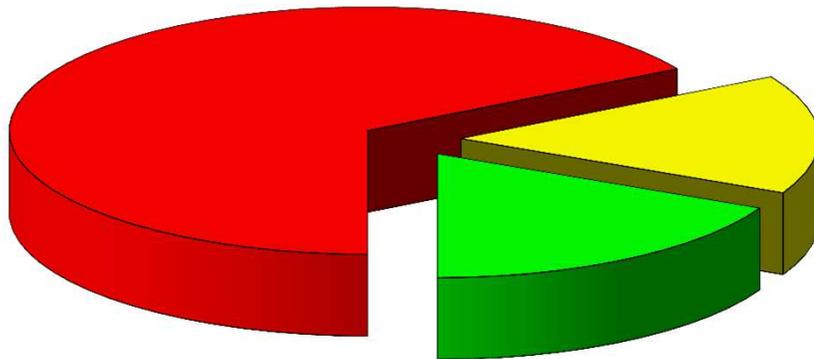
# Reflection on GMO cultivation (3)



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## ✓ CONTAINED USE OF GMOs in R&D

### 65CU – registered systems



7 - CU systems vertebrate facility

6 mice

2 rats

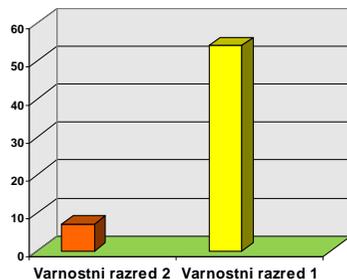
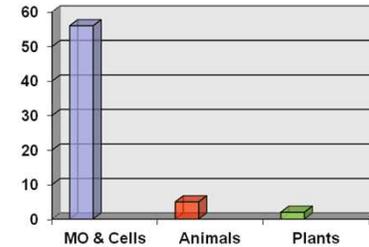
1 - CU system registered as insect facility

2 - green-houses

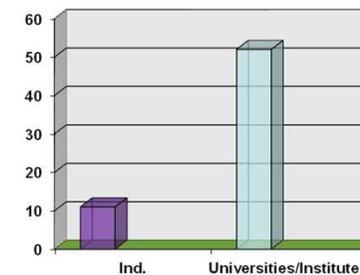
Universities 44

Institutes 11

Industry 9



65 registered systems  
54 biosafety class I  
11 biosafety class II,



# Reflection on GMO cultivation (4)



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## ✓ DELIBERATE RELEASE AND CULTIVATION OF GMOs



- ❖ NO DELIBERATE RELEASE OF GM PLANTS
- ❖ NO CULTIVATION OF GM PLANTS

## ✓ MONITORING OF GMOs IN SEED

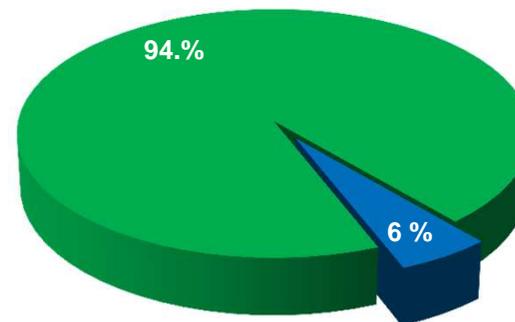
SOYA  
2006-2014



RAPSEED  
2006-2014



GMO detected in maize  
2006-2014



- GMO detected
- GMO not detected

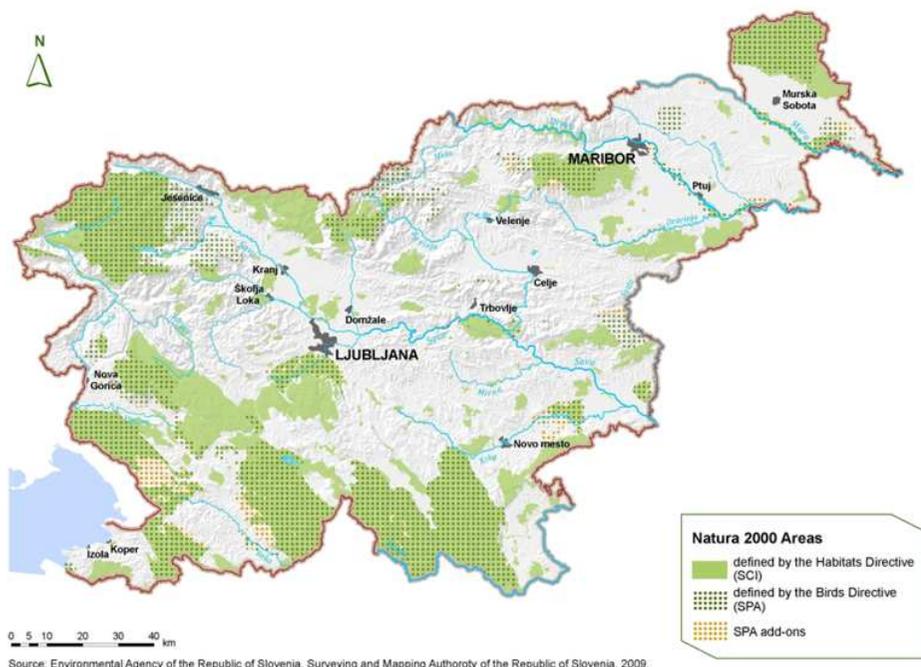
# Reflection on GMO cultivation (5)



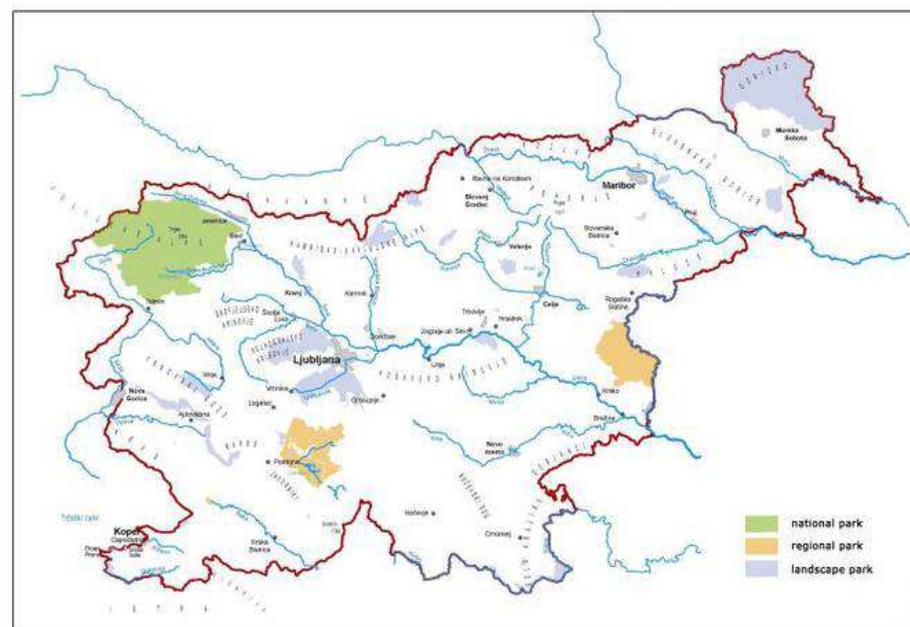
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## ✓ ENVIRONMENT (protection of the environment and biodiversity)

- ❖ One of the highest percentage of protected areas in EU - almost 39% of the Natura 2000 sites and more than 11% of protected areas (parks, reserves, etc.);
- ❖ Cultivation of GMOs in protected areas is limited to some extent (in favour of sustainable farming which maintains and preserves the biodiversity of flora and fauna and the environment)



Source: Environmental Agency of the Republic of Slovenia, Surveying and Mapping Authority of the Republic of Slovenia, 2009.



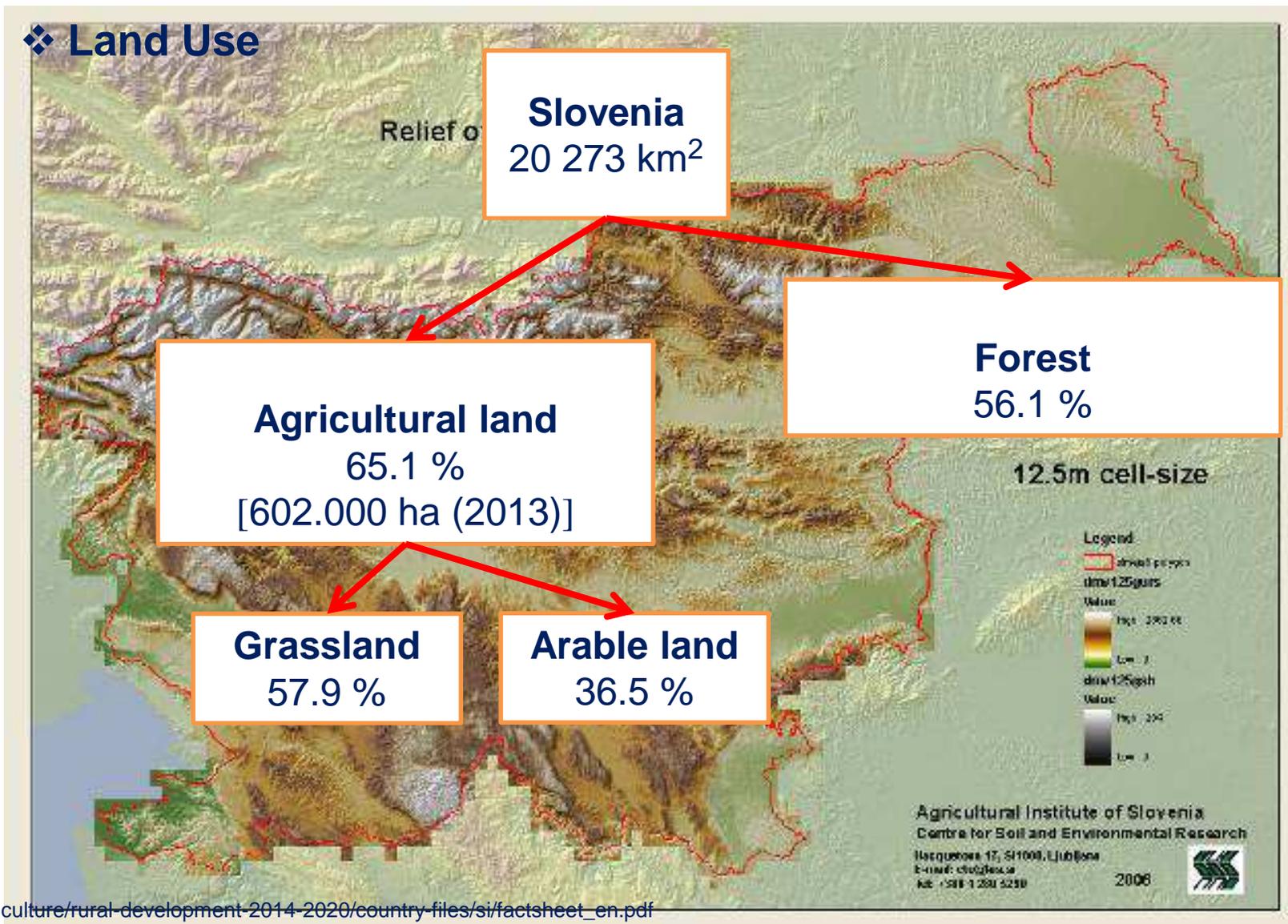
[http://www.mop.gov.si/en/areas\\_of\\_work/nature/nature\\_parks\\_of\\_slovenia/](http://www.mop.gov.si/en/areas_of_work/nature/nature_parks_of_slovenia/)

# Reflection on GMO cultivation (6)



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## ✓ AGRICULTURE



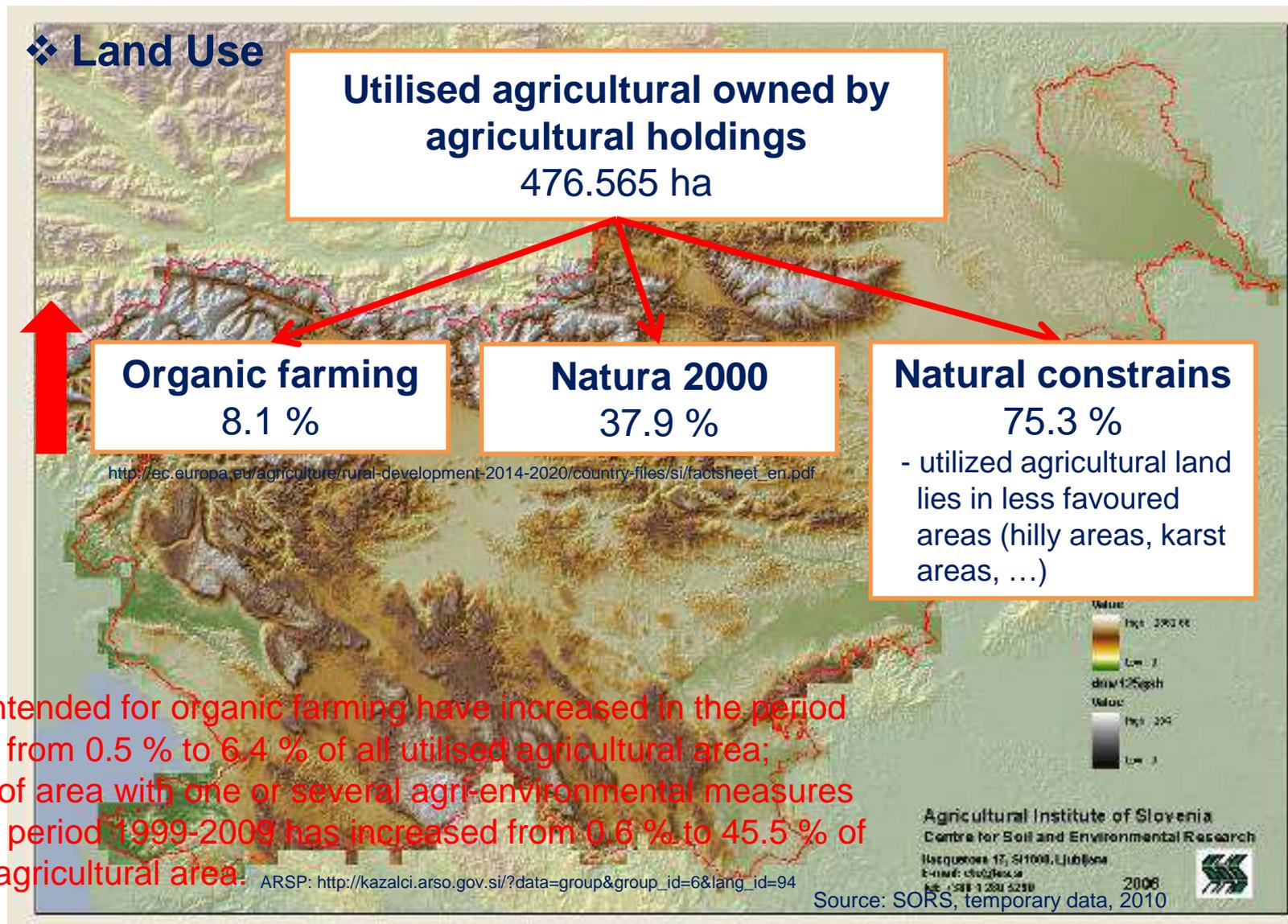
# Reflection on GMO cultivation (7)



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## ✓ AGRICULTURE

### ❖ Land Use



- The area intended for organic farming have increased in the period 1999-2010 from 0.5 % to 6.4 % of all utilised agricultural area;
- The share of area with one or several agri-environmental measures (net) in the period 1999-2009 has increased from 0.6 % to 45.5 % of all utilised agricultural area.

ARSP: [http://kazalci.arso.gov.si/?data=group&group\\_id=6&lang\\_id=94](http://kazalci.arso.gov.si/?data=group&group_id=6&lang_id=94)

# Reflection on GMO cultivation (8)



## ✓ AGRICULTURE

### ❖ Farm structure

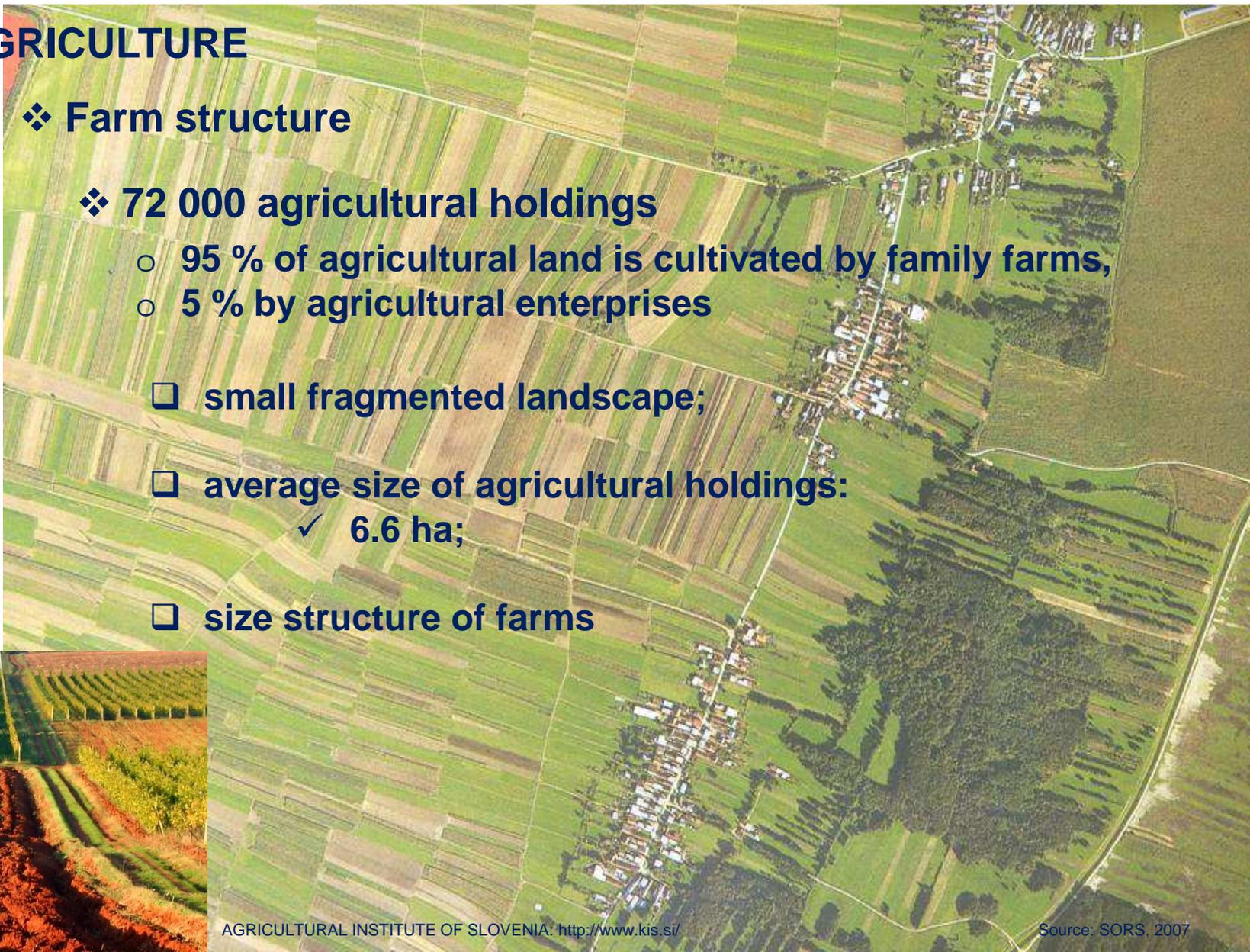
#### ❖ 72 000 agricultural holdings

- 95 % of agricultural land is cultivated by family farms,
- 5 % by agricultural enterprises

small fragmented landscape;

average size of agricultural holdings:  
✓ 6.6 ha;

size structure of farms



# Reflection on GMO cultivation (9)

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## ✓ AGRICULTURE

### ❖ Rural Development Programme 2020

- I. Restoring, preserving and enhancing ecosystems related to agriculture and forestry – to improve biodiversity, and water and soil management.

### ❖ Organic farming – concept incompatibility with GMOs (Council Regulation 834/2007)

- ### ❖ Domestic / local & traditional – maintaining as high as possible biological diversity and diversity of varieties in plant production, which is the basis for food production, and preserving landscape variety, the source of income for survival on farms and is part of natural and cultural heritage.



SOkol, ARSO, Author: Nina Lozej



SOkol, ARSO, Author Vesna Kitthiya



SOkol, ARSO, Author Albert Kolar



SOkol, ARSO, Author Vesna Kitthiya

# Reflection on GMO cultivation (10)



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## ✓ AGRICULTURE

### □ „GMO free“ PRIVATE STANDARDS

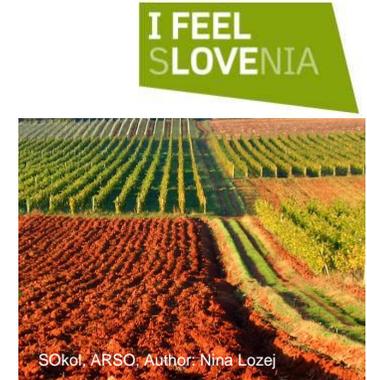
#### ❖ »Produced/manufactured GMO free« certificate – labeling scheme

○ The following certified food products are eligible for the mark:

- milk and dairy products;
- meat and meat products;
- eggs; and other food products made with soybeans, corn and rapeseed or containing these ingredients.



<http://www.ikc-um.si/ikc-um/zasebni-standard/>



#### ❖ „Danube Soya Initiative“

**Danube Soya Initiative**

Danube Region soybean potential: 2,4 million Ha  
Target volume 2020: ≥ 4 million tons

- ✓ Austria
- ✓ Bosnia-Herzegovina
- ✓ Croatia
- ✓ Germany (Bayern, Baden Württemberg)
- ✓ Hungary
- ✓ Romania
- ✓ Serbia
- ✓ Slovakia
- ✓ Slovenia
- ✓ Switzerland

- Italy (Trentino Alto Adige, Friuli Venezia Giulia, Veneto, Emilia-Romagna, Lombardia, Piemonte, Valle d'Aoste)
- Poland (Dolnośląskie, Opolskie, Śląskie, Świętokrzyskie, Podkarpackie, Małopolskie)
- Bulgaria
- Czech
- Rep of Moldova
- Ukraine (Uchogorod, Tschernowyz, Winniza, Odessa, Lwow, Terнопil, Chmelnycki, Iwano-Frankowsk)

Diagno.Dima, April 2010, November 2013

WWW.DANUBESOYA.ORG

# Reflection on GMO cultivation (11)

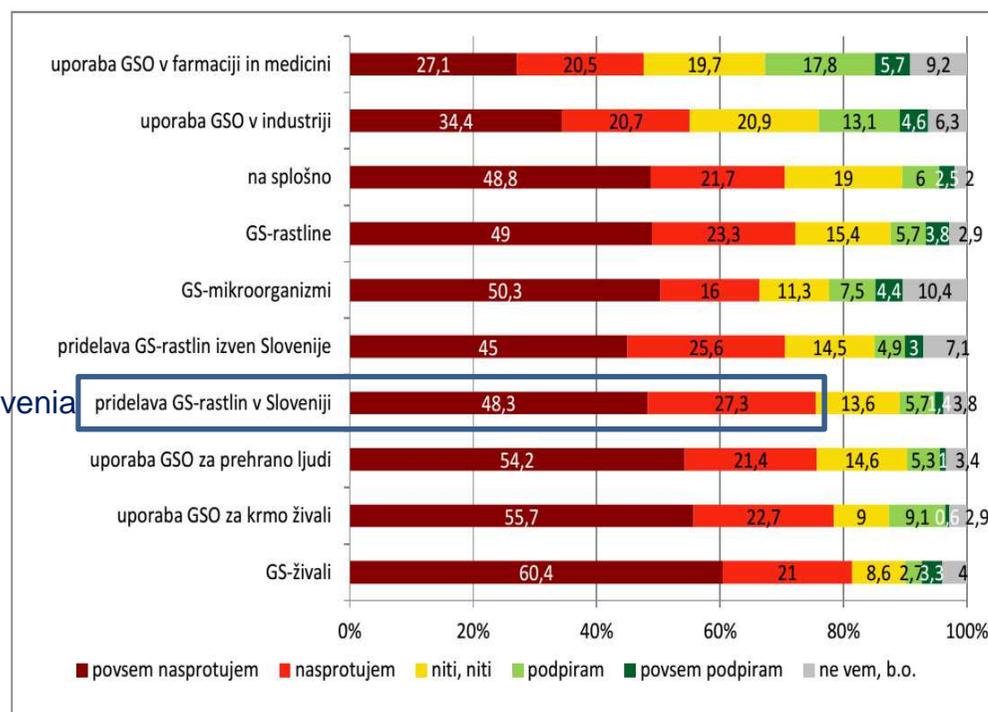


## ✓ PUBLIC OPINION



- ❖ 75% of Slovenians would never buy GM food; Consumer's Association (2007) (<http://www.zps.si/sl/hrana-in-pijaca/gso/vec-kot-tri-cetr-tine-slovencev-ne-bi-kupili-gs-hrane.html>)
- ❖ >70% of Slovenians not in favour of GM Plants cultivation (2012)

Cultivation of GMP in Slovenia



Slika 1: Stališča prebivalcev Slovenije do GSO glede na različne vrste, uporabo in geografsko oddaljenost GSO,

N=446 (v %)

Source:

SOCIO-ekonomski dejavniki in stališča o pridelavi gensko spremenjenih rastlin v Sloveniji [Elektronski vir] / uredili Luka Juvančič, Karmen Erjavec in Jelka Šuštar Vozlič. - El. knjiga. - Ljubljana : Fakulteta za družbene vede, Založba FDV, 2014

# Reflection on GMO cultivation (12)

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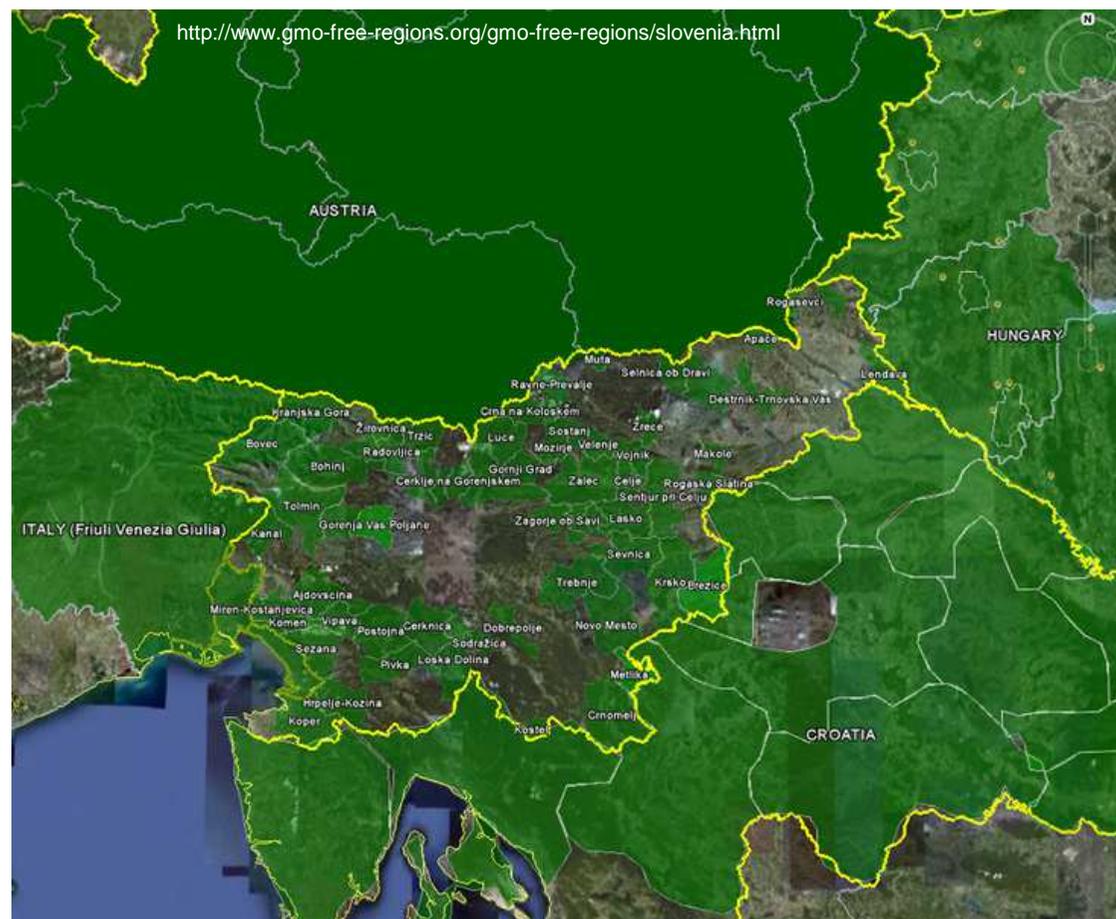
## ✓ NATIONAL VOLUNTARY INITIATIVE

### □ „GMO FREE“ - Municipalities

- ❖ 79 community councils (more than 1/3 of all Slovenian communities) have declared themselves „GM-free“



In 2003, a **declaration on »Ecoregion Alpe Adria«** has been signed by the presidents of organic farmers' associations of Slovenia, the Austrian provinces of Carinthia and Styria and the Italian provinces of Friuli-Venezia Giulia and Veneto, expressing their intention to work towards an organic and trans-boundary GMO-free region.



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## ✓ POLITICAL

- ❖ The current Government coalition comprises the Party of Modern Centre (SMC), the Democratic Party of Pensioners of Slovenia (DeSUS) and Social Democrats (SD) as partners

- Chapter: Agriculture, Forestry and Rural Development

- Implementation of precautionary principle in GMO-related issues ([http://www.vlada.si/en/about\\_the\\_government/ministries/ministry\\_of\\_agriculture\\_forestry\\_and\\_food/](http://www.vlada.si/en/about_the_government/ministries/ministry_of_agriculture_forestry_and_food/))





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