



#GrowingTheFuture

European Policy Developments Regarding NGTs

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The EU Seed Sector – Facts & Figures

EMPLOYMENT:
approx.

52.000

**ANNUAL R&D
SPENDING:**

up to: **20%**

(of the companies'
turnover)

**R&D
STATIONS:**

750

4.000 NEW
VARIETIES

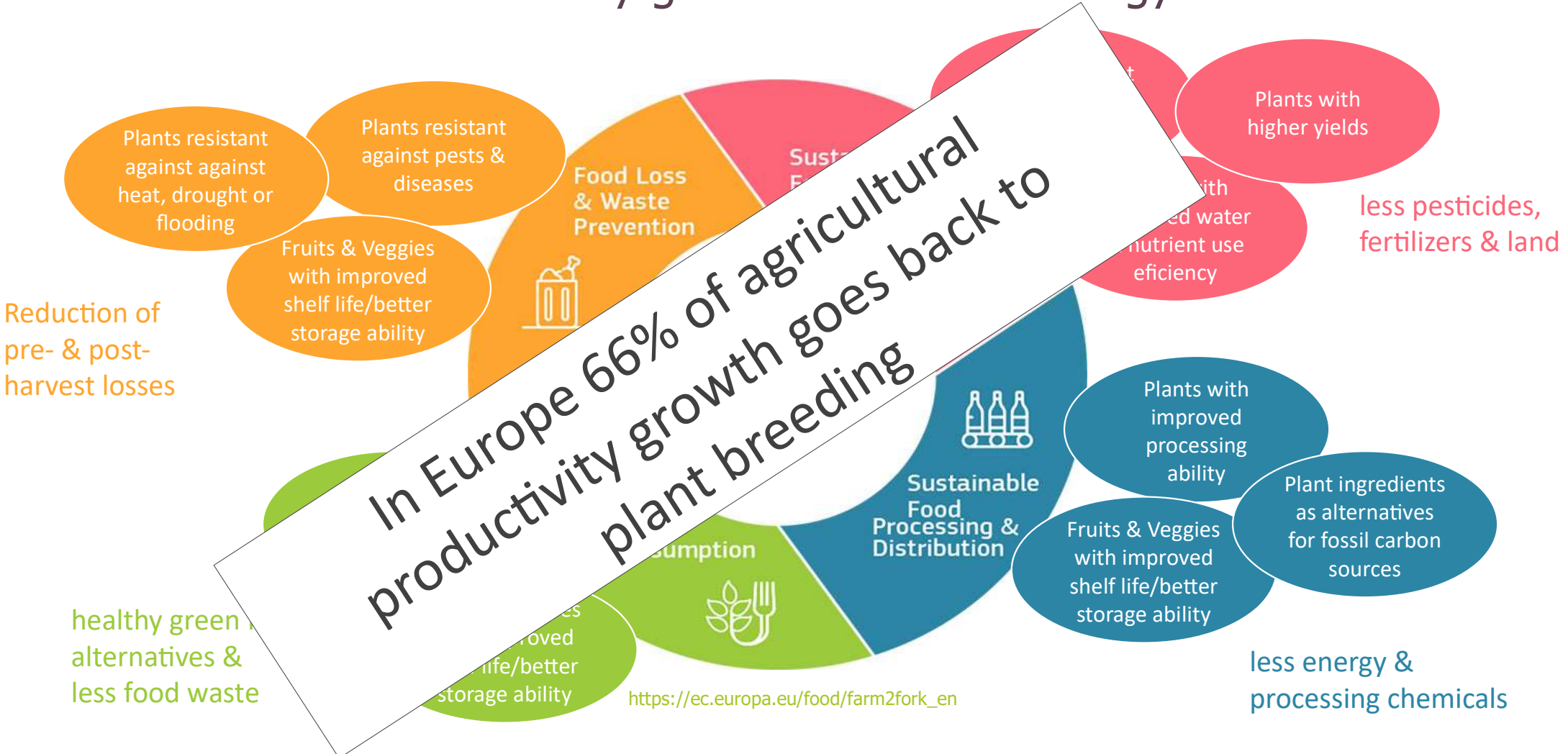
of agricultural and vegetable
species come to the
EU market **EVERY YEAR***.

51.000 DIFFERENT
VARIETIES

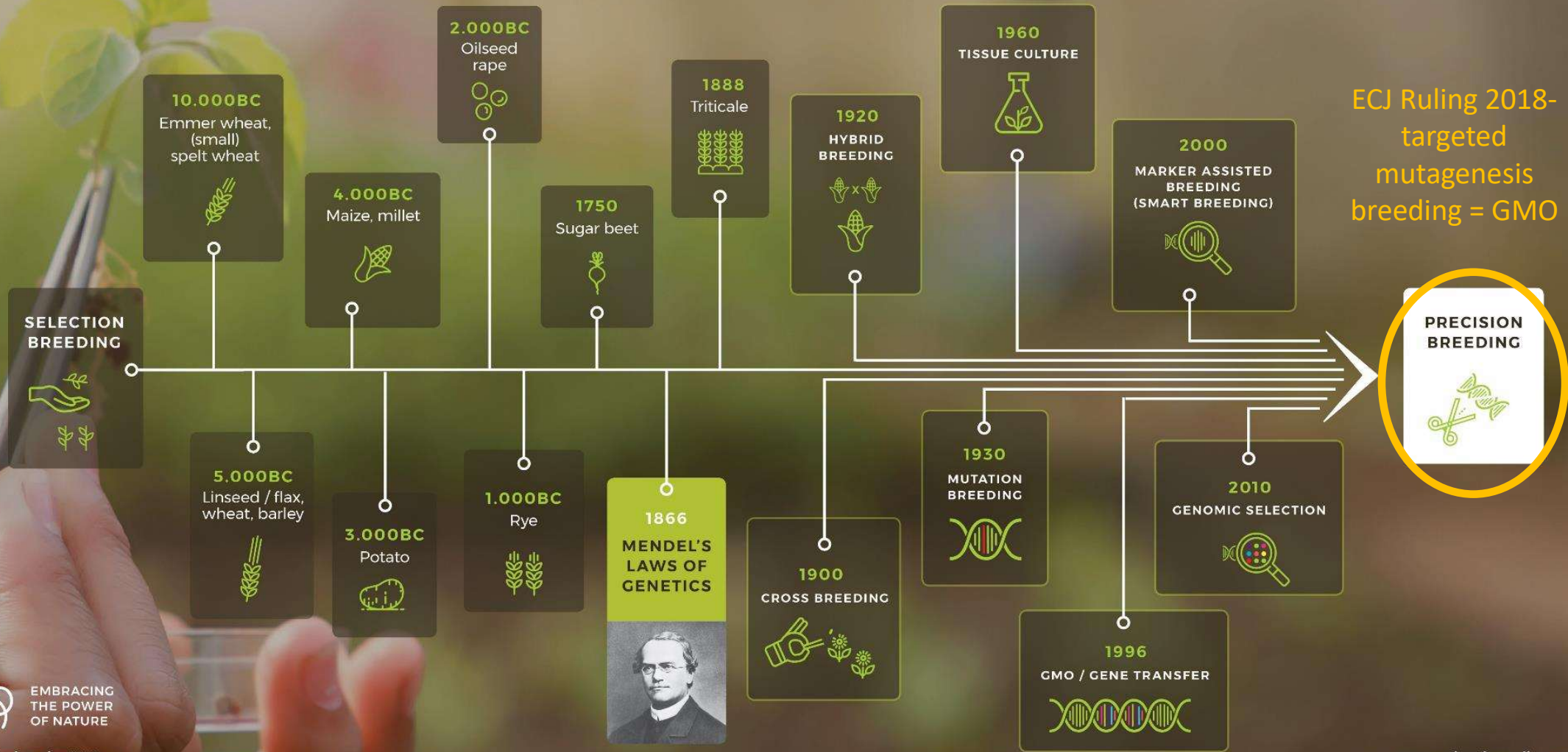
of agricultural and vegetable
species are available to EU
farmers **TODAY***.

*<https://ec.europa.eu/food/plant-variety-portal/>

Plant Breeding Innovation can enable the sustainability goals of the F2F Strategy



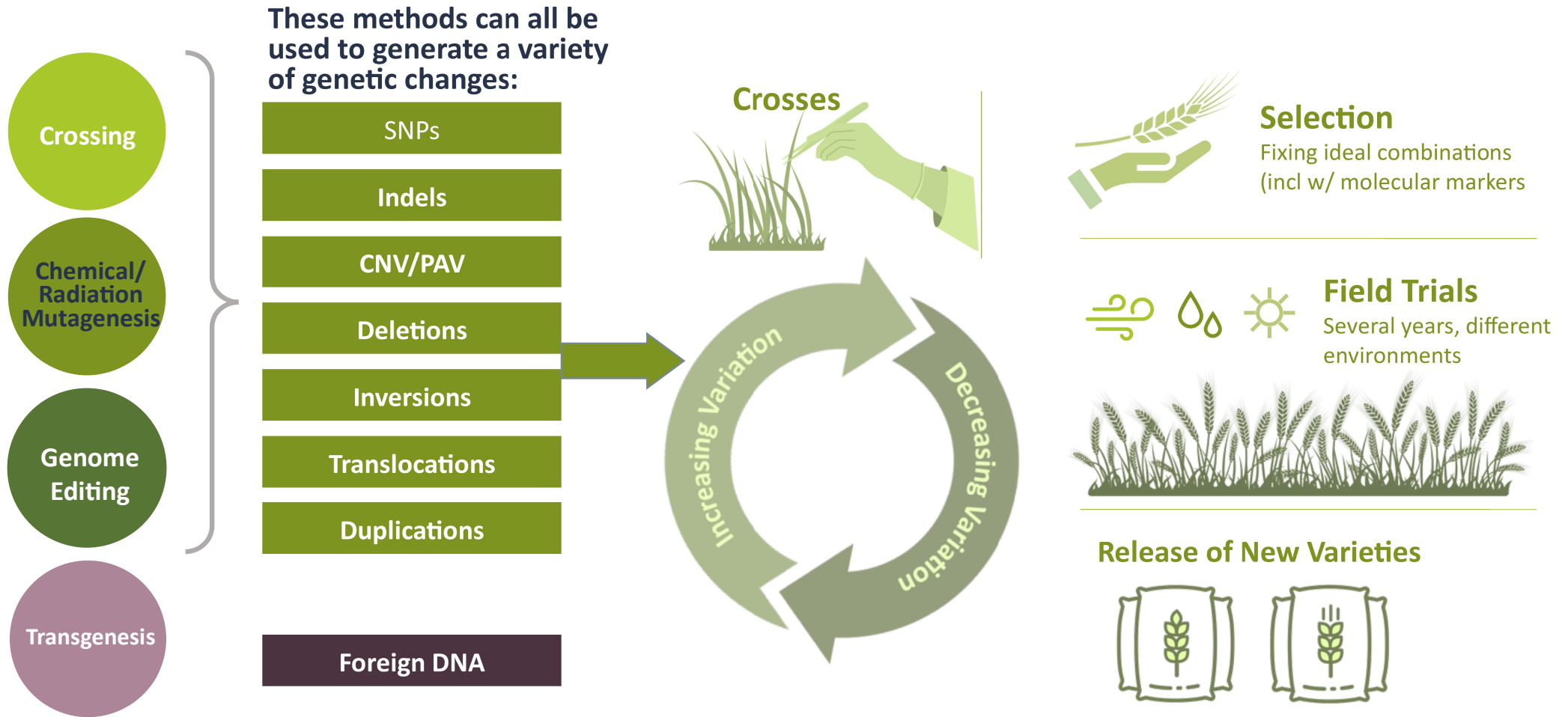
We need an evolving toolkit in plant breeding



EMBRACING THE POWER OF NATURE

#EmbracingNature

Different breeding methods can introduce the same genetic variability into the breeding cycle:



Type of Products (according to draft proposal)

Conventional Products	NGT Category 1	Annex IB GMOs	NGT Category 2	GMO
cross-breeding, including by using advanced techniques such as embryo rescue, induced polyploidy and bridge crosses	equivalent to conventional plants if equivalence criteria are met	GMO techniques listed under Annex IB of 2001/18 Mutagenesis Protoplast fusion (cells from crossable species)	NGT plants not meeting the criteria of NGT Category 1 or NGT plants with herbicide tolerance traits	Transgenic plants
No risk assessment	Notification procedure No risk assessment	No risk assessment	Adapted GMO risk assessment	Full GMO risk assessment
No labelling	Seed bag labelling + NGT info public register	No labelling	GMO labelling (+ trait) + Public GMO register	GMO labelling + Public GMO register
No detection method	No detection method	No detection method	(No) detection method	detection method
Allowed for organic farming	Not allowed for organic farming	Allowed for organic farming	Not allowed for organic farming	Not allowed for organic farming
Listing in National and EU Variety Catalogue				

Policy developments around the world (07/2023)

Canada: Product based approach; Health Canada and CFIA guidance for food finalized excluding plants without foreign DNA, CFIA guidance on feed tbd

US: USDA excludes certain products; others case-by-case
EPA: exempts certain products;
FDA: tbd

Argentina, Chile, Brazil, Paraguay, Colombia, Honduras, Guatemala, El Salvador: Case-by-case approach, excluding certain gene edited products without novel combinations of DNA
Costa Rica, Uruguay: draft Case-draft case-by-case approach, excluding certain gene edited products without novel combinations of DNA

Differentiation from GMO regulations (at least by one agency/authority)
Draft proposal to differentiate from GMO regulations (at least by one agency/authority)
Products considered GMO's, but with simplified assessment procedures/requirements
Draft proposal where products considered GMO's but with simplified assessment procedures/requirements
All products considered GMO's

Europe: GMOs, but policy proposal expected by 5/7/23

Norway: GMO, but discussion of a "tiered" approach

England: case-by-case approach excluding certain gene edited products – secondary legislation expected

Switzerland: GMO, government proposal expected until 2024

Israel: guidance that case-by-case certain gene edited products are excluded

Malawi, Nigeria, Kenya: case-by-case approach excluding certain gene edited PBI products

Burkina Faso, Ghana, Ethiopia: draft guidance excluding certain gene edited PBI products

SA: government notice that NBTs are GMOs, ongoing appeal procedure

Russia: decree for R&D program clarifying that gene editing products are "conventional-like"

China: provisional "GMO-light" guidance

South Korea: proposed revised LMO act (GMO-light)

India: Exclusion of SDN 1/2, case by case approach with extensive data requirements

Singapore/Indonesia: draft proposal to exempt certain gene edited products

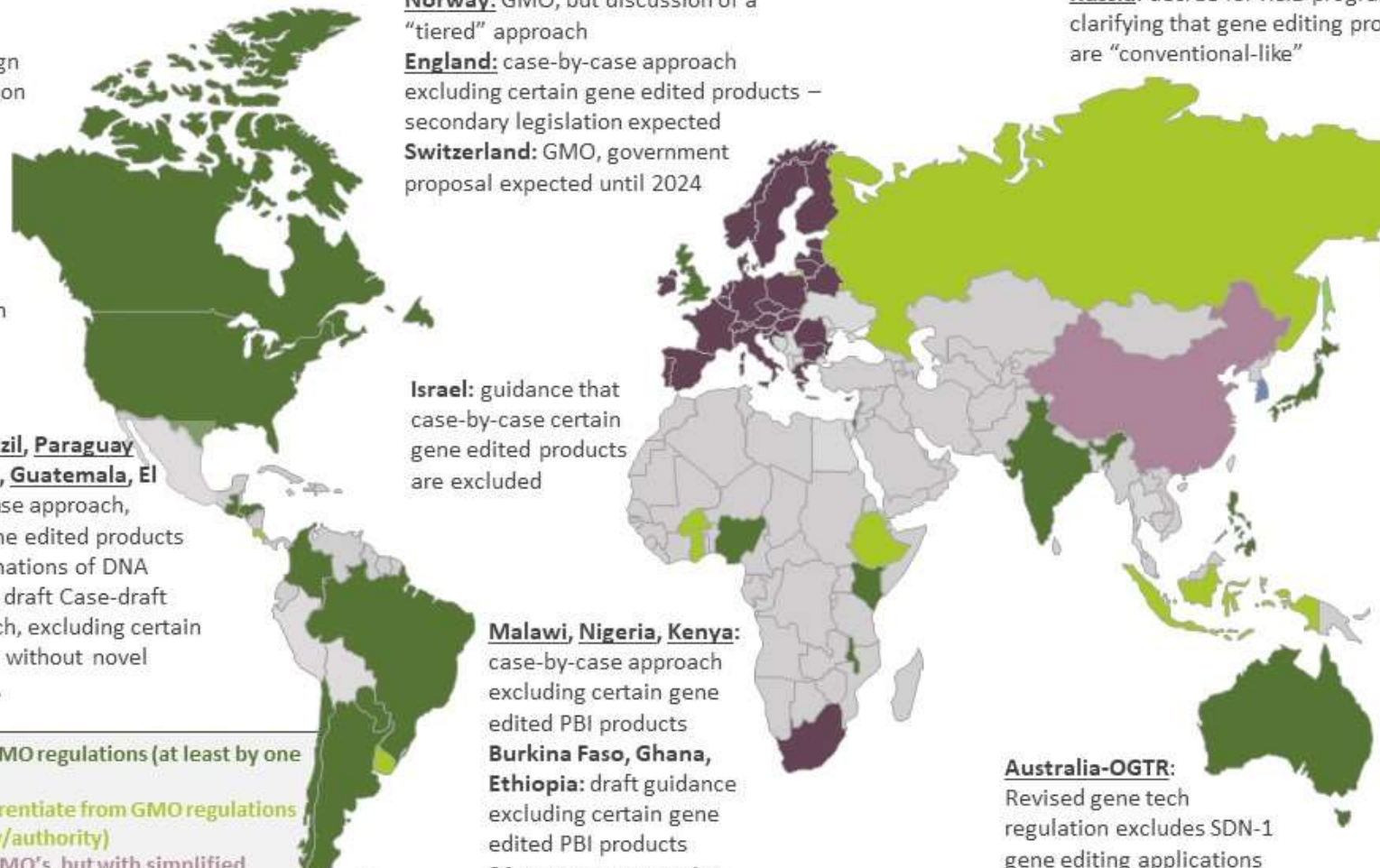
Japan: case-by-case approach excluding certain gene edited products

Philippines: case by case excluding gene edited products without foreign DNA

AU-NZ - FSANZ: Proposal for updated framework for food/ feed expected



NZ: High Court decision that specific techniques are GMOs



Conclusions

- Plant breeding has a proven track record of boosting sustainability options for agriculture
 - Environmental: e.g. reduction of inputs by disease resistance, climate adaptation, reduction of land use
 - Societal: e.g. improved quality, health effects
 - Economic: e.g. improved income by improved yields and quality
- NGTs provide additional opportunities to support sustainability:
 - Reduction of breeding time
 - More targeted breeding approaches reducing complexity in breeding
- NGT applications are versatile and can be used in the development of a wide range of different plant products with many different characteristics:
 - GMO – like products
 - Conventional - like products
- Europe should join the increasing number of countries that follow a differentiated, science based and efficient regulatory approach according to these product categories.
- The EC proposal is a reasonable starting point for a more aligned approach- yet some of the regulatory considerations lack scientific evidence, create inconsistency as well complexity and inefficiency

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