



A South African perspective on the regulation of NBTs

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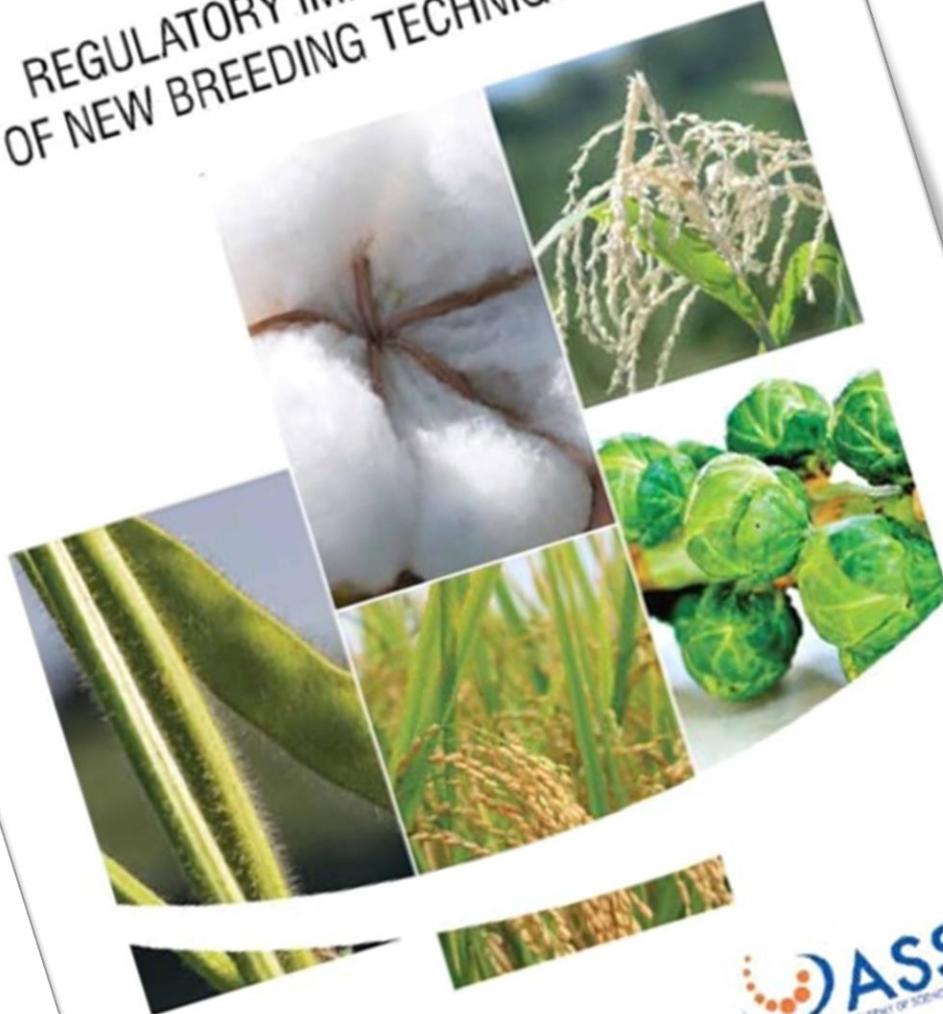


science & innovation

Department:
Science and Innovation
REPUBLIC OF SOUTH AFRICA



THE REGULATORY IMPLICATIONS OF NEW BREEDING TECHNIQUES



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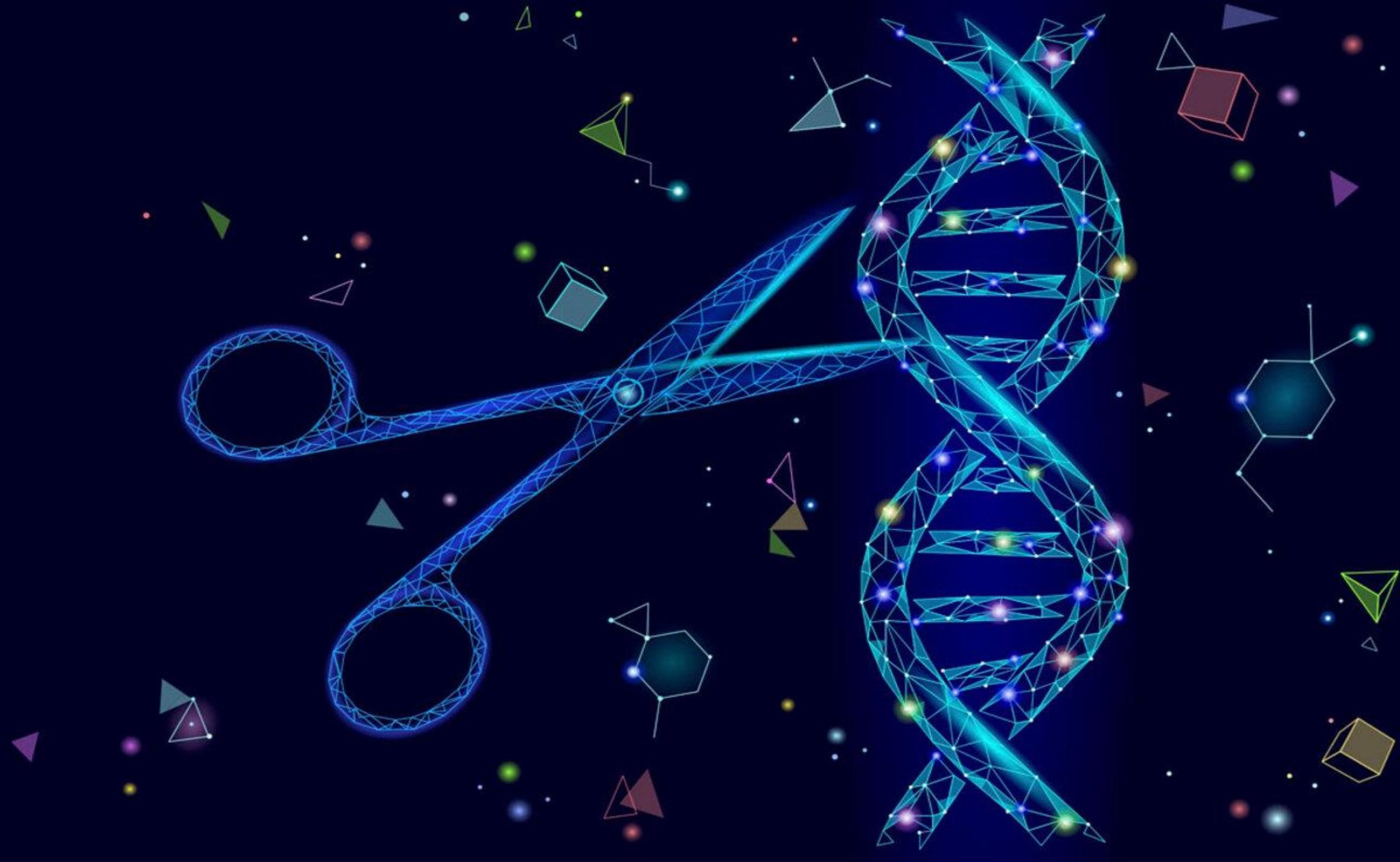
Scope & purpose

- evaluate risk / benefit implications
- ascertain applicability of existing legislation
- assess robustness of current regulatory framework and risk analysis practice to accommodate these and future, related technologies
- recommend accordingly

Findings

1. NBTs hold great potential > particularly for developing countries.
2. [*Then*] Only a few countries have formalised regulation.
3. Genome modified organisms principle source of risk > product-based trigger.
4. GMO Act sufficient > regulation threshold = genetic variation beyond that which may occur naturally.
5. Consider a succinct consultation process to determine if product is regulated.
6. Likely regulatory outcomes of suggested framework aligns well with current consensus discussions.

OPPORTUNITIES



Africa's OPPORTUNITY to benefit from genetics-based innovation!

Tech barrier ↓
Time barrier ↓

Cost barrier ↓
Risk barrier ↓

Need to compliment with fit-for-purpose regulation!



Impact of genome editing

Productivity

>2x

higher

SME/public

90%

friendly

Trait/product

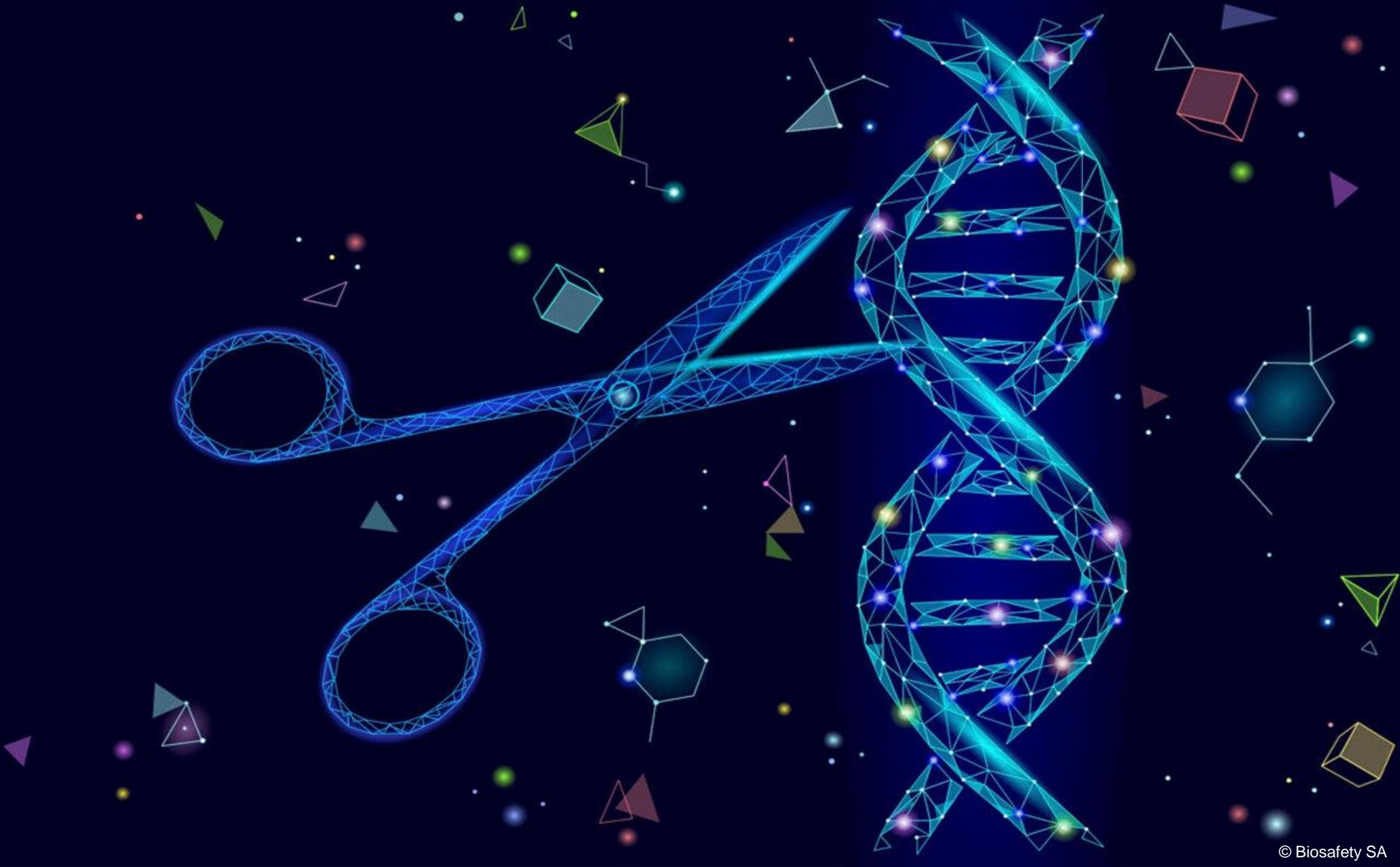
↑up

diversity

Timely & fit-for-purpose regulatory frameworks drive local innovation



CHALLENGES

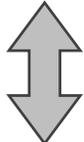


regulation

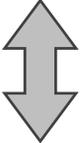


Key issues since 2017

1. Trigger - product vs process



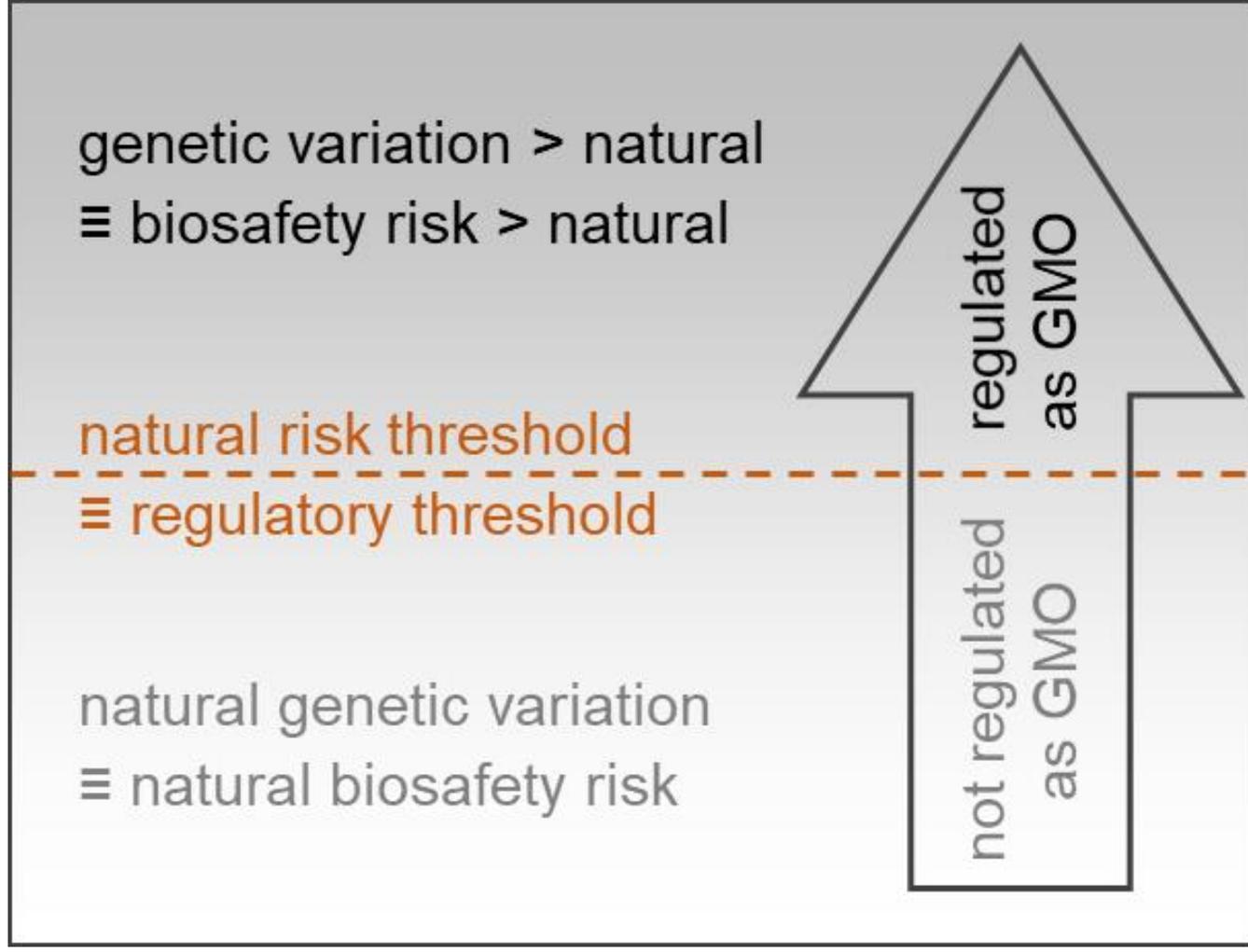
2. Threshold



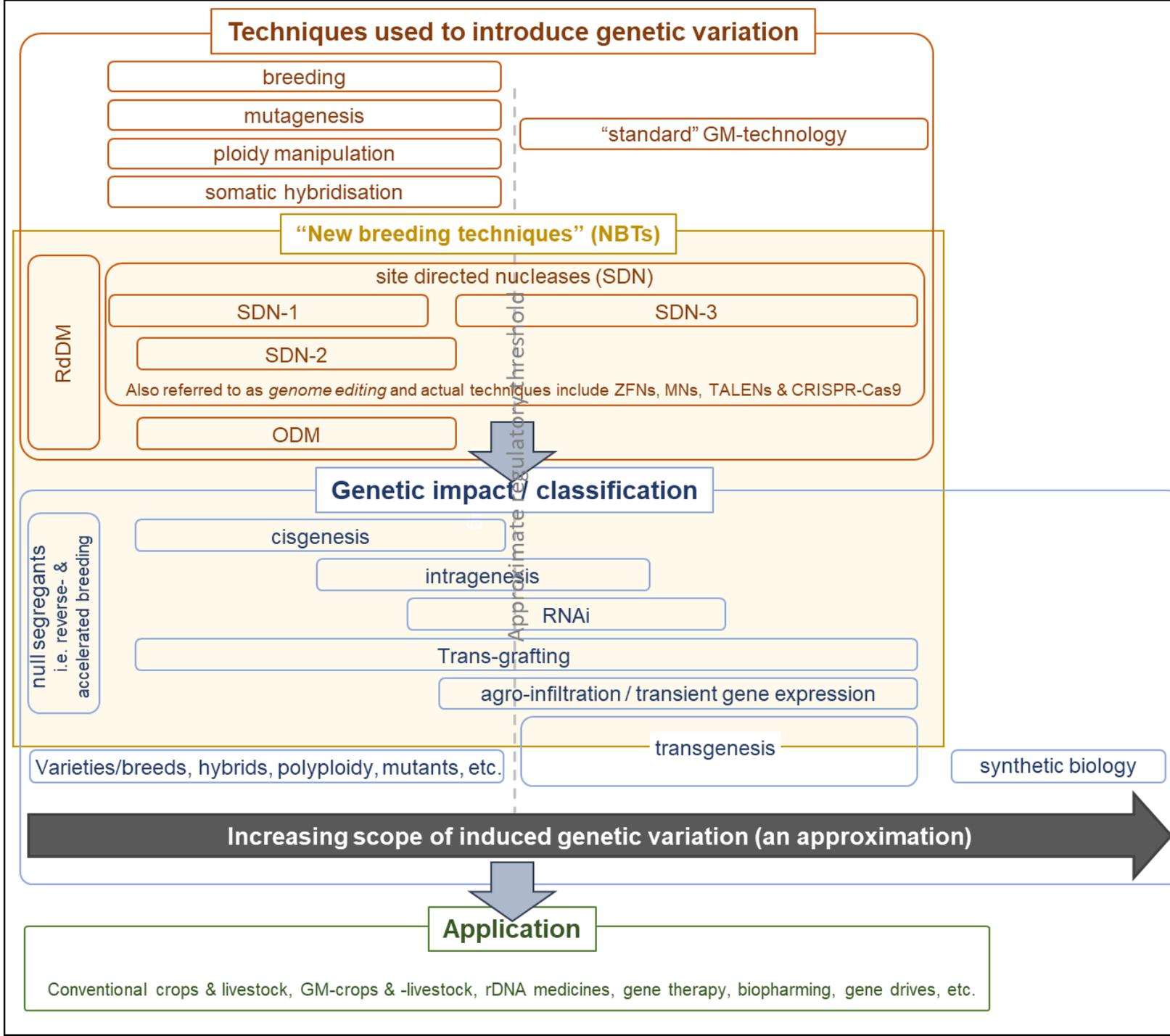
3. Managing risk vs managing risk perceptions

} Legal (political) vs risk discussion

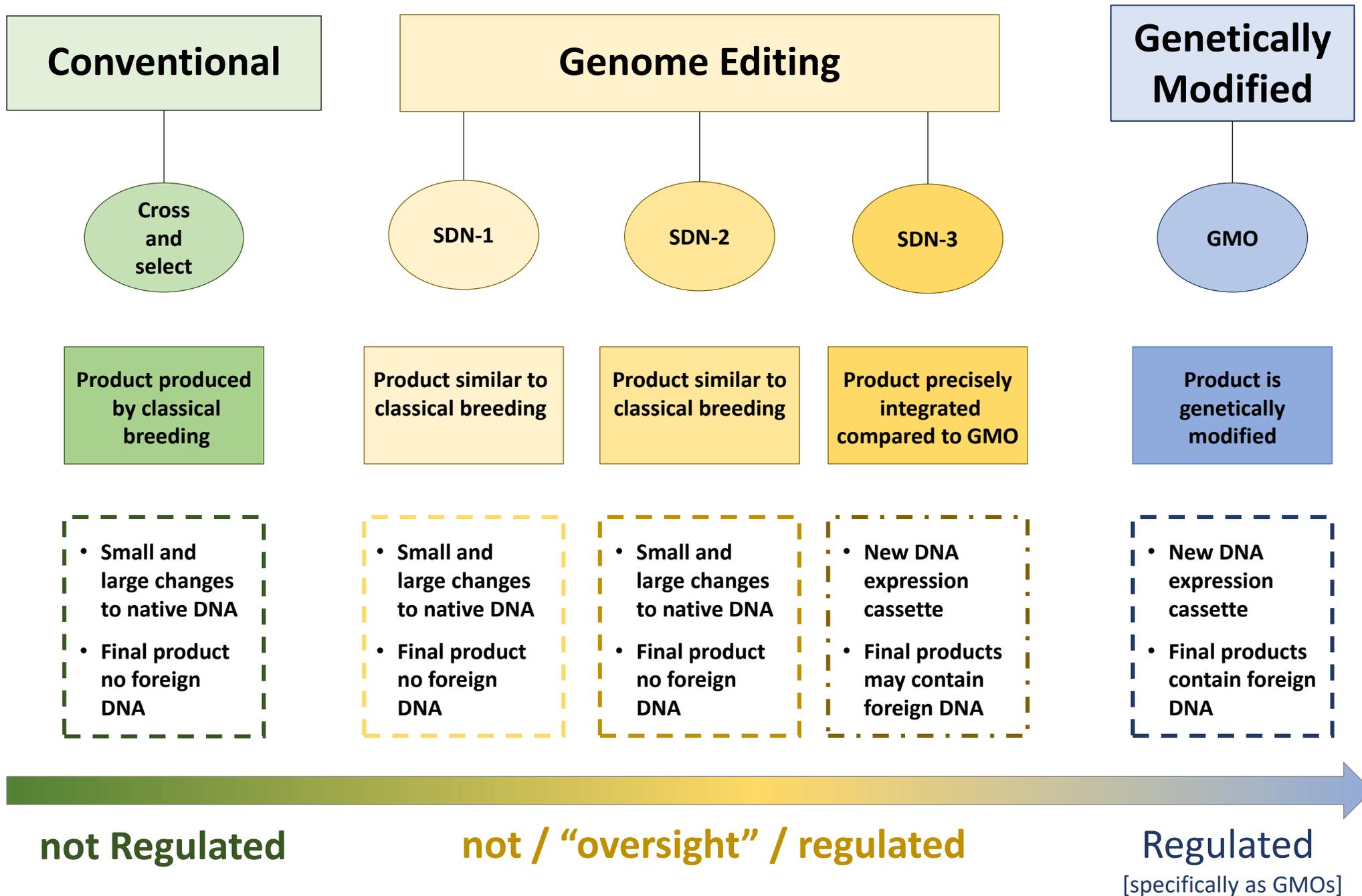
Risk perspective I



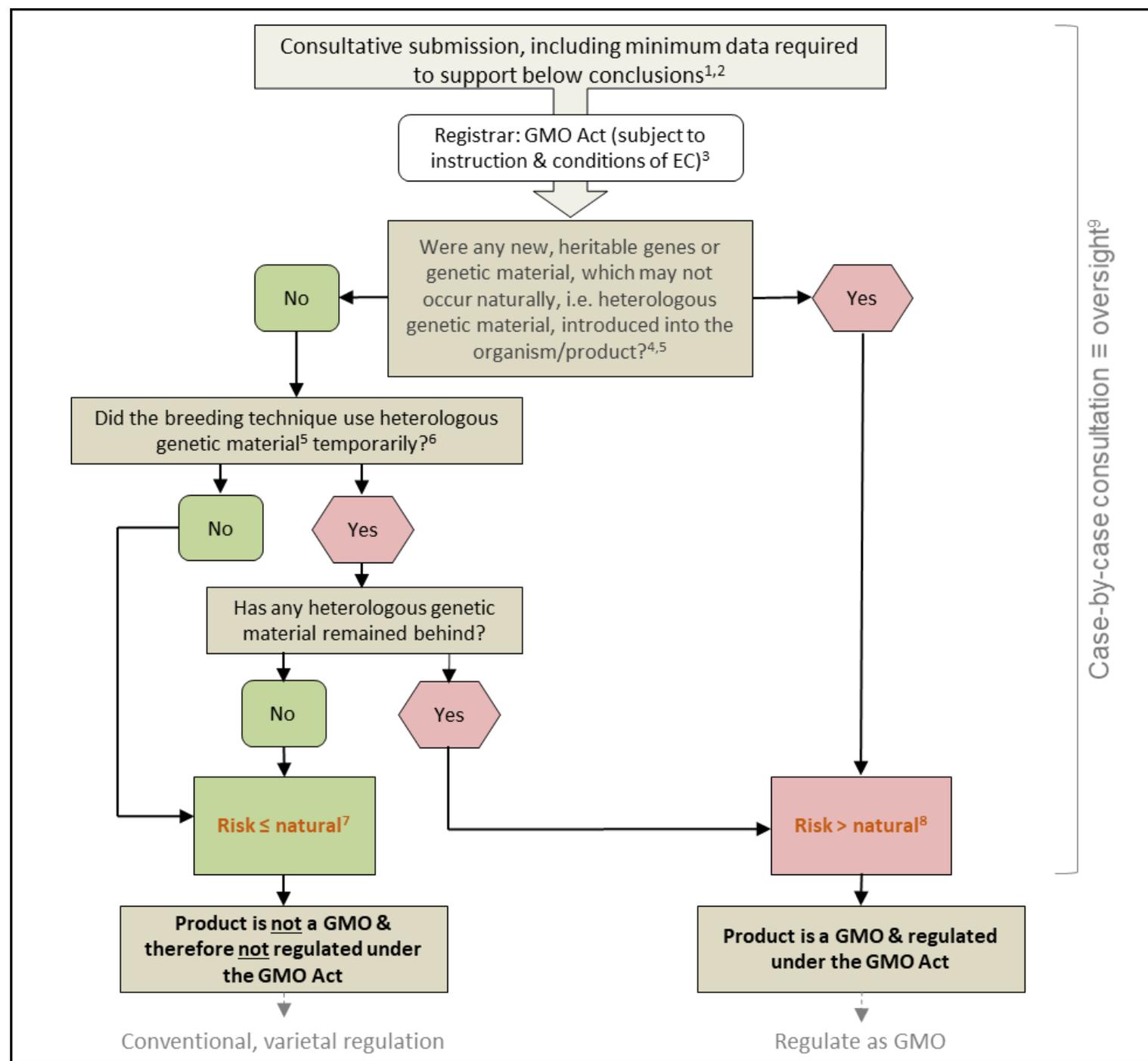
Risk perspective II



Risk perspective III



Proposed fit-for-purpose governance framework for genome editing in South Africa



acceptance



Rethink public engagement for gene editing



How to communicate effectively



- TRUST > knowledge
- Start with WHY
- Get diverse ALLIES to vouch for sound information
- SEEING is believing!



Thank you!



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