



Approval and Registration of Biotherapeutics in Mexico

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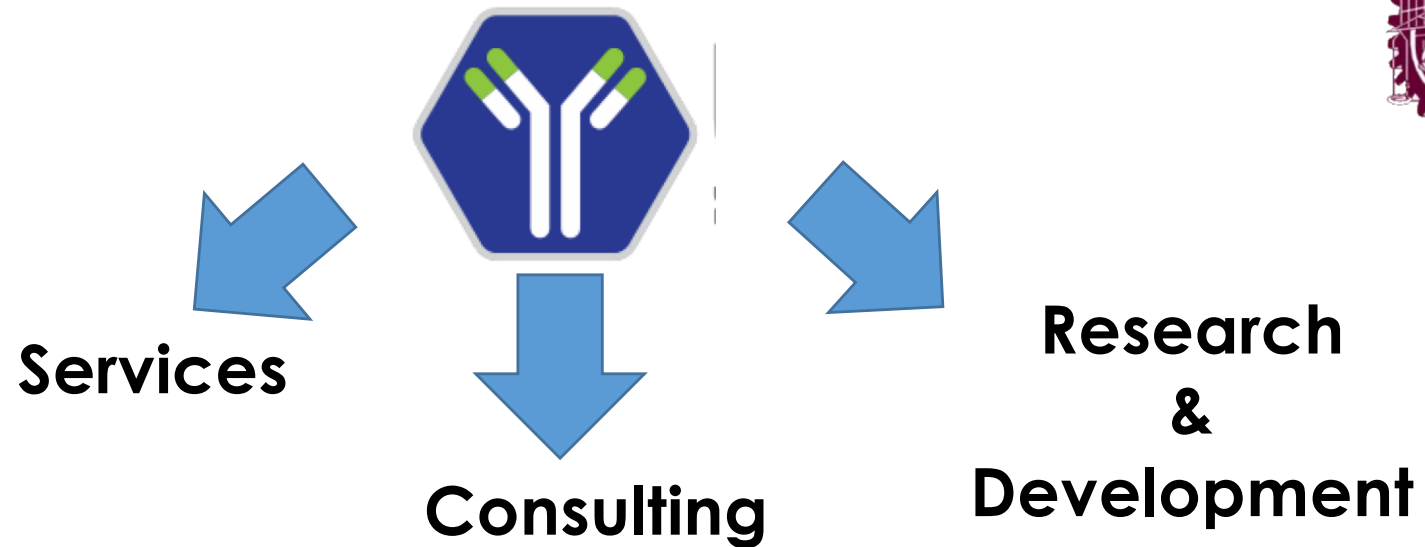
*The National
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COMMITTEE ON STRONGER FOOD AND
DRUG REGULATORY SYSTEMS ABROAD

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About us

UDIBI-IPN, Third party Lab of COFEPRIS



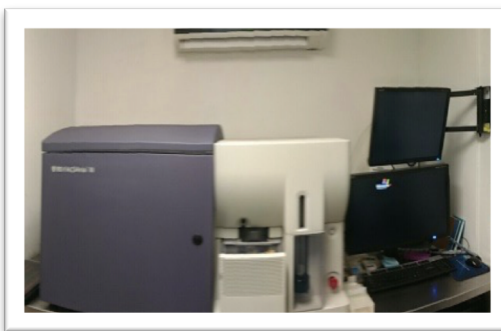
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Experiencia académica-
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Our team



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Executive Director



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Dr. Carlos López
Operations Director



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Technical-Scientific Director





Regulatory Pathway for Licensing Biotherapeutics in Mexico

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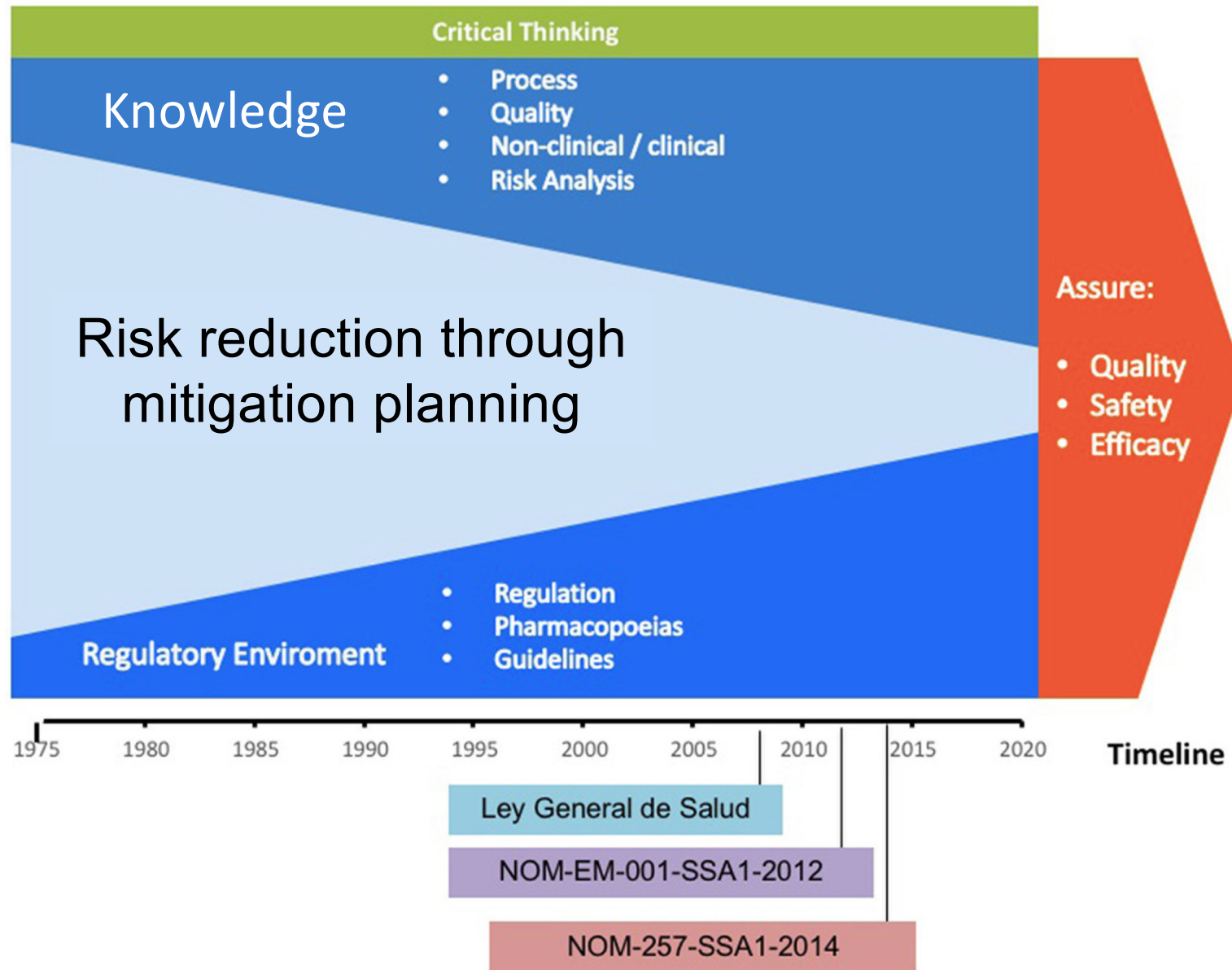
Edited by:

Jan Willem Van Der Laan,
Medicines Evaluation Board,
Netherlands

Biotherapeutic products which are derived from living organisms using recombinant DNA technology significantly contribute to the progress in the treatment of life-threatening and chronic diseases. The worldwide sale of biological drugs in 2016 was near US \$263,700 million. In Latin America, where monoclonal antibodies market was worth US \$7000 million, being Mexico the second largest market. Approval is one of the key aspects which influences the market of medicinal products, thus it is responsibility of the regulatory authority to establish a regulatory framework that ensure safety and efficacy of the products and it is responsibility of the applicants to provide a high quality



Knowledge and criteria for biotherapeutic approval during time



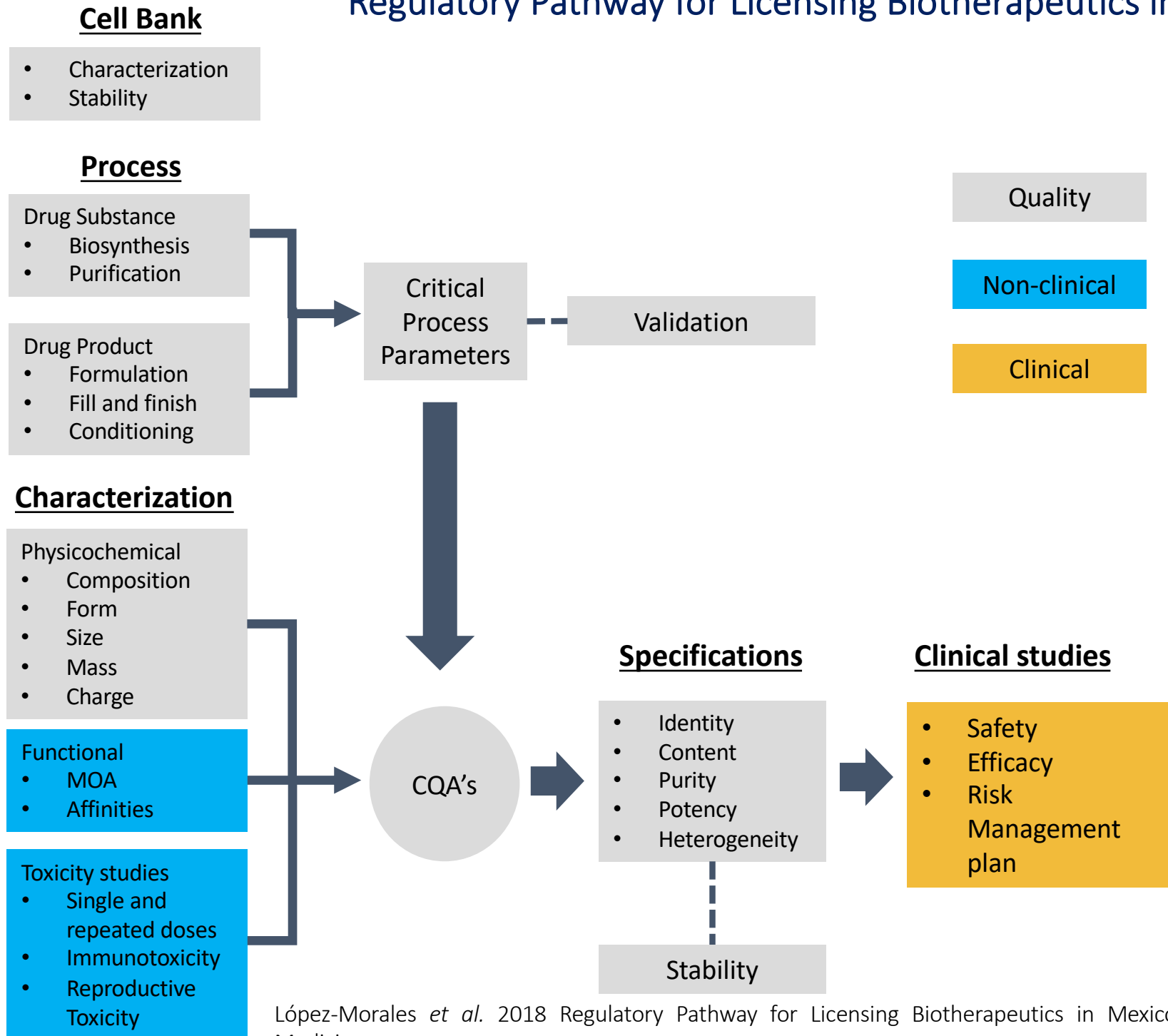
Framework for biotherapeutics in Mexico

Regulation	Title
NOM-012-SSA3-2012	Establishing criteria for execution of research projects for health in humans.
NOM-059-SSA1-2013	Good manufacturing practices for drug product.
NOM-072-SSA1-2012	Labeling of drug and herbal products.
NOM-073-SSA1-2005	Drug substance and drug product stability.
NOM-164-SSA1-2013	Good manufacturing practices for drug substance.
NOM-177-SSA1-2013	Requirements for authorized third parties that perform interchangeability tests. Requirements to conduct comparability studies. Requirements for authorized third parties, research centers or hospital institutions that perform comparability tests.
NOM-220-SSA1-2016	Pharmacovigilance operation.

López-Morales *et al.* 2018 Regulatory Pathway for Licensing Biotherapeutics in Mexico. *Frontiers in Medicine*.



Regulatory Pathway for Licensing Biotherapeutics in Mexico



Cell Bank

- Characterization
- Stability

Process

- Drug Substance
- Biosynthesis
 - Purification

- Drug Product
- Formulation
 - Fill and finish
 - Conditioning

Characterization

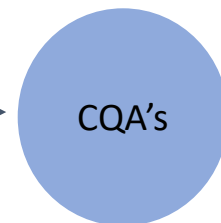
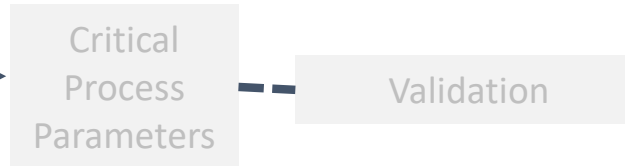
- Physicochemical
- Composition
 - Form
 - Size
 - Mass
 - Charge

- Functional
- MOA
 - Affinities

- Toxicity studies
- Single and repeated doses
 - Immunotoxicity
 - Reproductive Toxicity

Regulatory Pathway for Licensing Biosimilars in Mexico

Comparability



Specifications

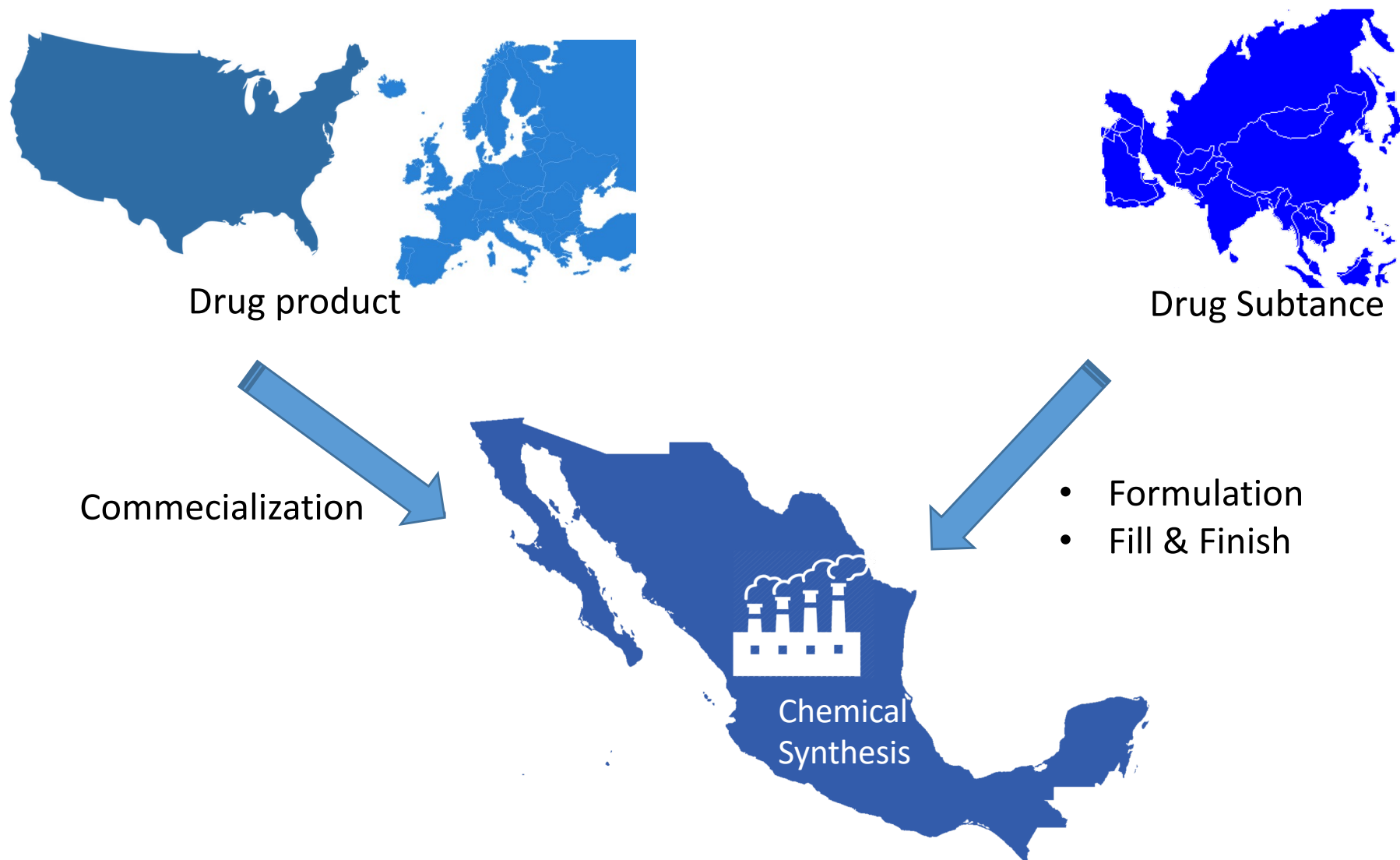
- Identity
- Content
- Purity
- Potency
- Heterogeneity

Stability

Clinical studies

- PK/PD
- Immunogenicity
- Risk Management plan

Pharmaceutical industry in Mexico



Opportunities for the evaluation of biotherapeutics

Close the gap in knowledge and technology

How?

- National and transnational investment
- Local Technological development for biotherapeutics
- Academy-Industry-Government international linkage





THANK YOU!

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