



PROPOSED NATIONAL FOOD INNOVATION REGULATORY TRANSFORMATION STRATEGY, POSITIONING EGYPT AS A REGIONAL HUB FOR INNOVATION, RESEARCH, MANUFACTURING AND MARKET ACCESS

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Introduction & Rationale

Positioning Egypt for Food Innovation

- ❑ Egypt is entering a new phase of **food system modernization**, building on strong agriculture and a growing food manufacturing sector.
- ❑ **Scientific capacity is expanding**, supported by the establishment of the **National Food Safety Authority (NFSA)**.
- ❑ Global markets are shifting toward **healthier diets, functional ingredients, and rapidly evolving food technologies**.
- ❑ Countries with **innovation-friendly, science-based regulation** attract investment, improve public health, and boost competitiveness.
- ❑ Egypt has the assets to become a **regional hub for functional ingredients, novel foods, and advanced production systems**.
- ❑ NFSA proposes a **Food Innovation Regulatory Transformation Strategy** to protect public health while enabling **safe, faster market access** for novel foods/ingredients.



Vision

Egypt will become a leading center for food innovation – powered by a predictable, transparent, science-based regulatory framework – ensuring safe, timely, responsible market entry for:

Novel Foods, Functional Ingredients and Innovative Production Systems



Strategic Objectives

1. **Modernize regulation** with clear pathways for novel foods, ingredients, and emerging technologies
2. **Leverage biodiversity + science** to develop functional ingredients from local crops, botanicals & traditional diets
3. **Enable investment & growth** in research, manufacturing capacity, and market development
4. **Protect public health** through robust safety evaluation and substantiation of claims
5. **Lead regionally**—position NFSA to shape innovation frameworks in **Africa, the Arab region, and Codex**



A Modernized Novel Foods Framework for Egypt

- ❑ NFSA will adopt a **national policy on food innovation & novel foods**
- ❑ Establishes **definitions, principles, and clear regulatory pathways**
- ❑ Key elements:
 - Defines what counts as a **novel food / novel ingredient** in Egypt
 - Confirms the **value of innovation** in production and product development
 - Applies **transparent, proportionate pre-market oversight**
 - Creates **predictable processes** that enable investment
 - Offers a **model** for African and Arab regulators
- ❑ **Science and risk-based**, aligned with **Codex**, tailored to Egypt's context



Flexible Categorization of Novelty & Proportionate Requirements

- ❑ NFSA will introduce a flexible, illustrative categorization to decide when/how assessment is needed
- ❑ Uses non-exhaustive categories (not fixed tiers) that evolve with science and technology
- ❑ Purpose:
 - To give innovators a transparent orientation
 - To support proportionate requirements (oversight matched to risk/novelty)
- ❑ Enables a dynamic system, updated as capacity grows and standards evolve



Illustrative Categories (A–E)

A

Traditional foods in new forms/contexts

New formats, concentrations, or processing (e.g., concentrated botanicals, reformulated traditional foods)

B

Novel ingredients from Egyptian biodiversity

Standardized local extracts/preparations (e.g., hibiscus polyphenols, moringa concentrates, baobab fiber)

C

Limited history of safe use

New sources lacking documented safe consumption (e.g., algae-derived compounds, underutilized species, fermentation-derived proteins)

D

Novel production/processing systems

Non-traditional technologies (e.g., precision fermentation, novel extraction, upcycling/valorization)

E

Ingredients linked to functional/health claims

Requires assessment of safety + efficacy/claim substantiation (traditional or novel)

Science-Based Evaluation & Claims Substantiation

- ❑ All products in the **novelty categories** undergo **science-based evaluation**
- ❑ Assessment includes:
 - ❑ composition & purity analysis
 - ❑ exposure / dietary intake estimation
 - ❑ tiered toxicology (based on degree of novelty)
 - ❑ allergenicity assessment
 - ❑ human use / clinical data review (where relevant)
- ❑ Functional/health claims require defined evidence thresholds for substantiation
- ❑ NFSA applies a **weight-of-evidence approach** to ensure **consumer protection** and **market integrity**



National Center of Excellence for Food Innovation (CEFI)

❑ NFSA will establish a **Center of Excellence for Food Innovation (CEFI)**

❑ Mandate:

- Provide **scientific + regulatory guidance** to innovators and industry
- Support **preparation and review of scientific dossiers**
- Coordinate **expert panels** (academia, research institutes, industry)
- Conduct **independent scientific reviews** (separate from final regulatory decisions)
- Lead **national capacity building** (novel food safety, toxicology, nutrition, biotech)
- Advise on **study design** for safety, efficacy, and claims substantiation



❑ CEFI will be Egypt's **scientific engine** for innovation oversight

Operationalization

Phased Regulatory Transformation Plan

- ❑ **Phased rollout** to ensure speed + quality: **framework** → **deployment** → **expansion**
- ❑ **Three phases** (over ~36 months):
 - **Phase 1 (0–12 months)**: establish policy and foundations
 - **Phase 2 (6–18 months)**: deploy tools, pilots, capacity
 - **Phase 3 (18–36 months)**: scale nationally + integrate regionally
- ❑ **Built around: governance, guidance, capacity building, transparency, and regional leadership**



Phase 1

Framework Establishment (0–12 months)

- ☐ Adopt the **national innovation policy**
- ☐ Publish **definitions, novelty categories, and initial guidance**
- ☐ Establish **NFSA Novel Foods Technical Committee**
- ☐ Conduct **stakeholder consultations** (academia, industry, regulators)



Phase 2

System Deployment (6–18 months)

- ☐ Launch **CEFI** + national **training programs**
- ☐ Develop **dossier templates** and **assessment protocols**
- ☐ **Pilot assessments** for selected novel foods/ingredients
- ☐ Publish scientific opinions via **JNFSA**
- ☐ Launch the **National Food Innovation Information Portal**



Phase 3

Expansion & Regional Integration (18–36 months)

- ❑ Full implementation of the **categorization system**
- ❑ Consolidate Egypt's **scientific assessment network**
- ❑ Take leadership roles in **AFRAF**, Arab, and **Codex** discussions
- ❑ Promote Egypt as a **regional center** for novel food evaluation



International Information-Sharing Platform (OECD & Beyond)

❑ NFSA will establish a **Regulatory Innovation Information-Sharing Platform** with OECD/high-capacity regulators

❑ Objectives:

- Monitor global **regulatory decisions & safety opinions** (e.g., EFSA, FDA, Health Canada, FSANZ, Singapore)
- Align with **best practices** for safety assessment and claims evaluation
- Strengthen Egypt's **credibility** as a science-based regulator
- Support Egyptian companies' **international market access**
- Build **mutual confidence** and bilateral cooperation on innovation oversight

❑ Serves as Egypt's **gateway to global regulatory intelligence** and reinforces regional leadership



Expected Economic & Industrial Benefits Driving Investment to Egypt

❑ Attract Foreign Direct Investment

- Predictable pathways encourage multinationals to base R&D, regional HQs and manufacturing in Egypt

❑ Grow value-added industries

- Convert local crops into functional ingredients/extracts with export potential (eg: hibiscus, mint, moringa, dates, barley, black seed, fenugreek, sorghum)

❑ Strengthen R&I ecosystem

- Clear expectations enable regulatory-aligned research and public–private partnerships

❑ Boost exports

- Transparent safety evaluations and published NFSA scientific opinions support global market recognition

❑ Empower SMEs & startups

- Reduced uncertainty lowers barriers and accelerates entrepreneurship

❑ Regional leadership

- Egypt becomes a trusted innovation assessment hub for Africa and the Arab region



Egypt's Regional & International Leadership

❑ In Africa (AFRAF / AfCFTA)

- Lead or co-lead AFRAF network workstreams on novel foods & innovation
- Contribute to harmonized African guidance aligned with AfCFTA



❑ In the Arab Region (AIDSMO & partners)

- Support AIDSMO and regional bodies to develop innovation-enabling frameworks



❑ In Codex Alimentarius

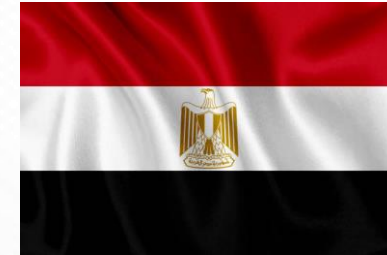
- Champion developing-country perspectives on new food sources/production systems (including CCAFRICA-relevant approaches)
- Advance dialogue on functional ingredients and evidence-based claims
- Promote global convergence in innovation oversight



Conclusion

Egypt's Path to Food Innovation Leadership

- ❑ Egypt can become a **regional and global leader** in food innovation governance through a modernized regulatory framework
- ❑ By implementing this strategy, NFSA will:
 - ensure **safe, transparent, proportionate** oversight of novel foods/ingredients
 - **drive investment** and industrial development
 - strengthen **public health protection**
 - empower **scientific institutions** and innovators
 - advance **harmonized, innovation-ready regulations** across Africa and the Arab region
- ❑ Impact: Egypt as a hub for **scientific assessment, manufacturing, regulatory excellence, and market access**—with innovation that is **safe and sustainable**



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