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Lab Working Group Report June, 2008

Lab Evaluation Team

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Support Team

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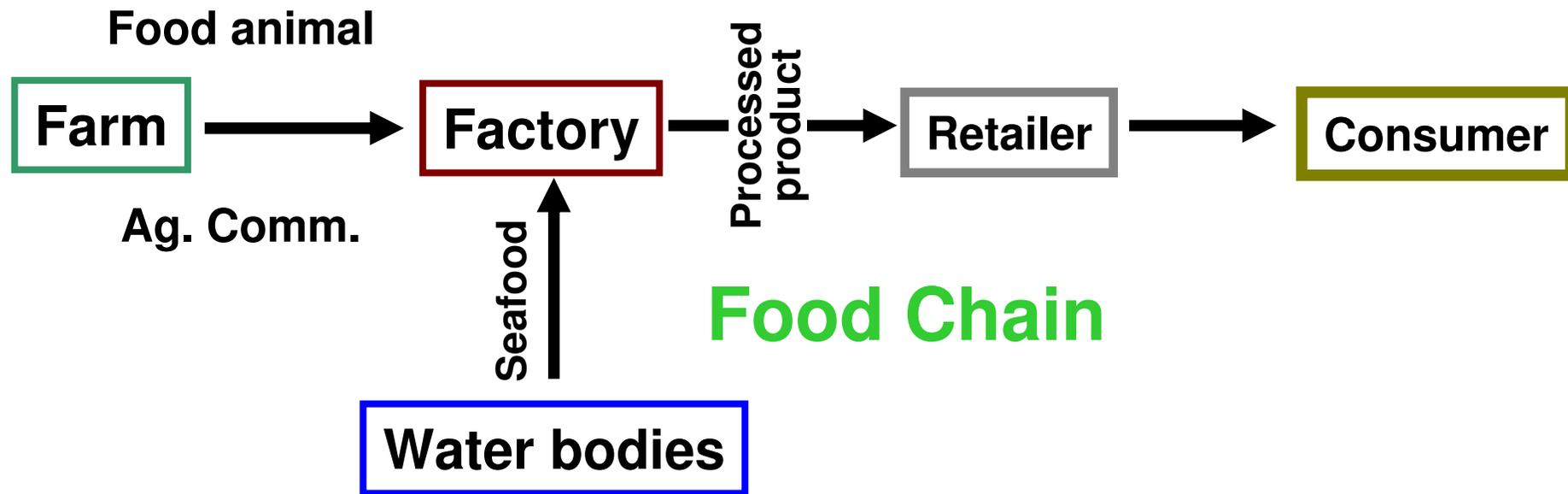
Eng. Lucy Seedhom, Health

Mr. Samir Abdel-Meseeh, GOEIC

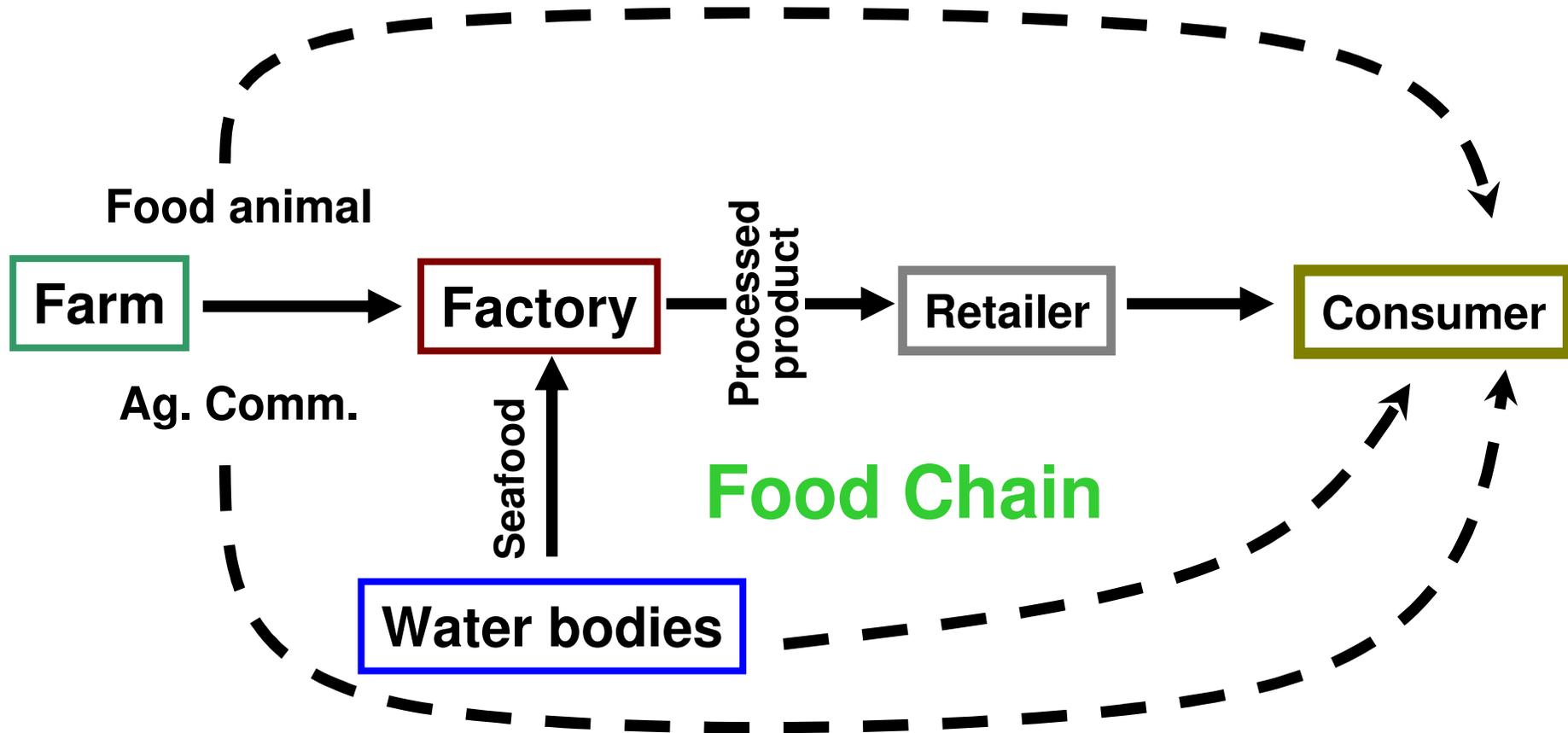
Mr. Raghieb Hozaien, GOEIC

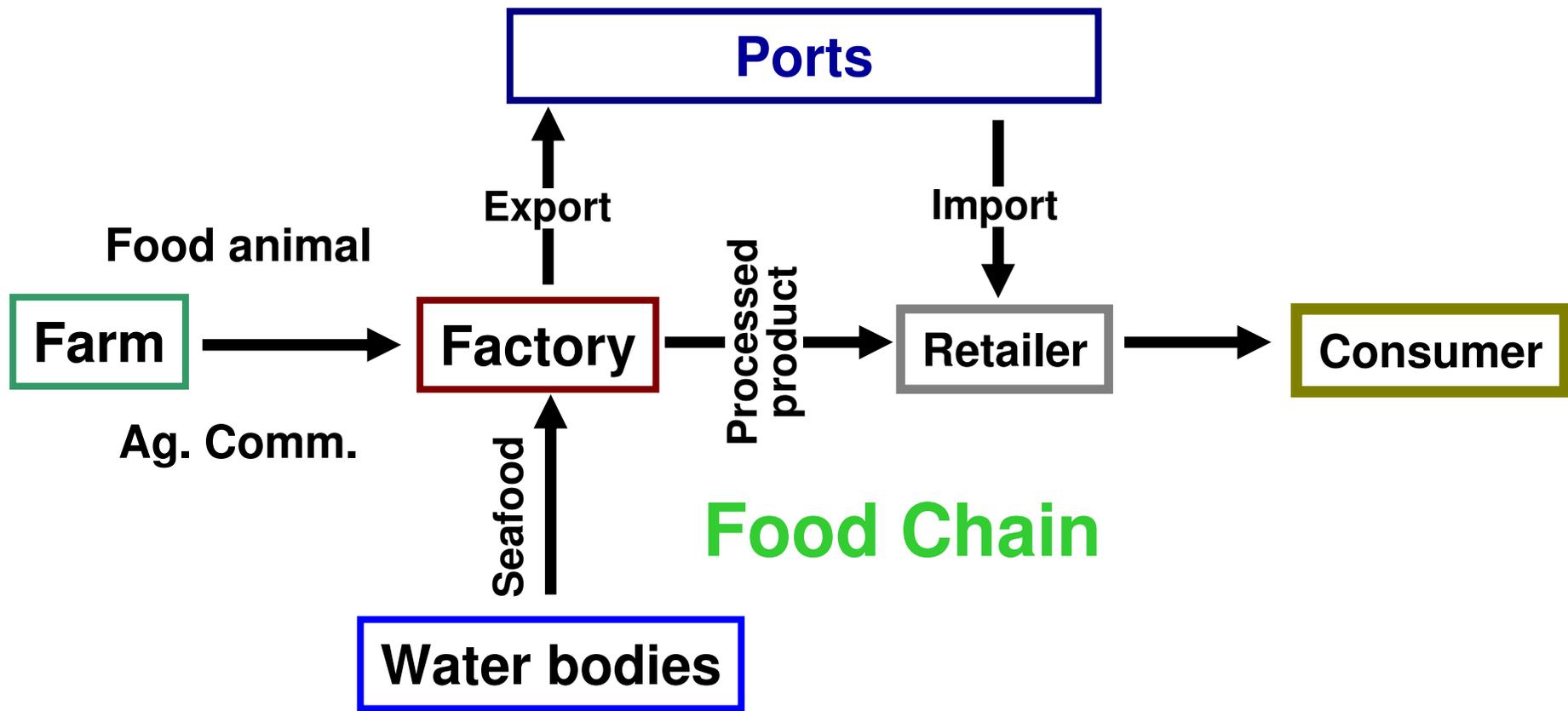
Mr. Mohamed Abul-Futuh, EOS

Where food comes from?

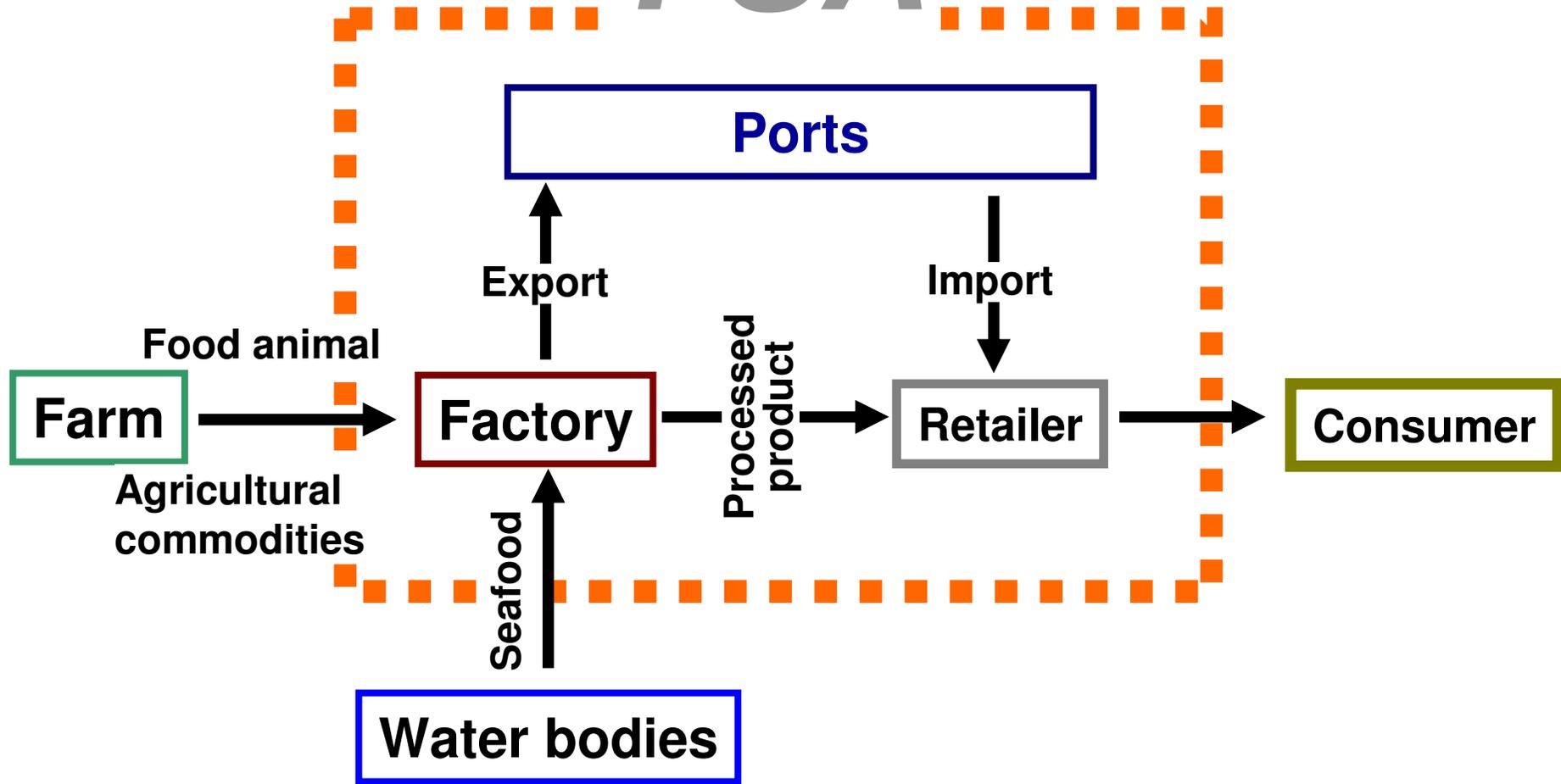


Where food comes from?

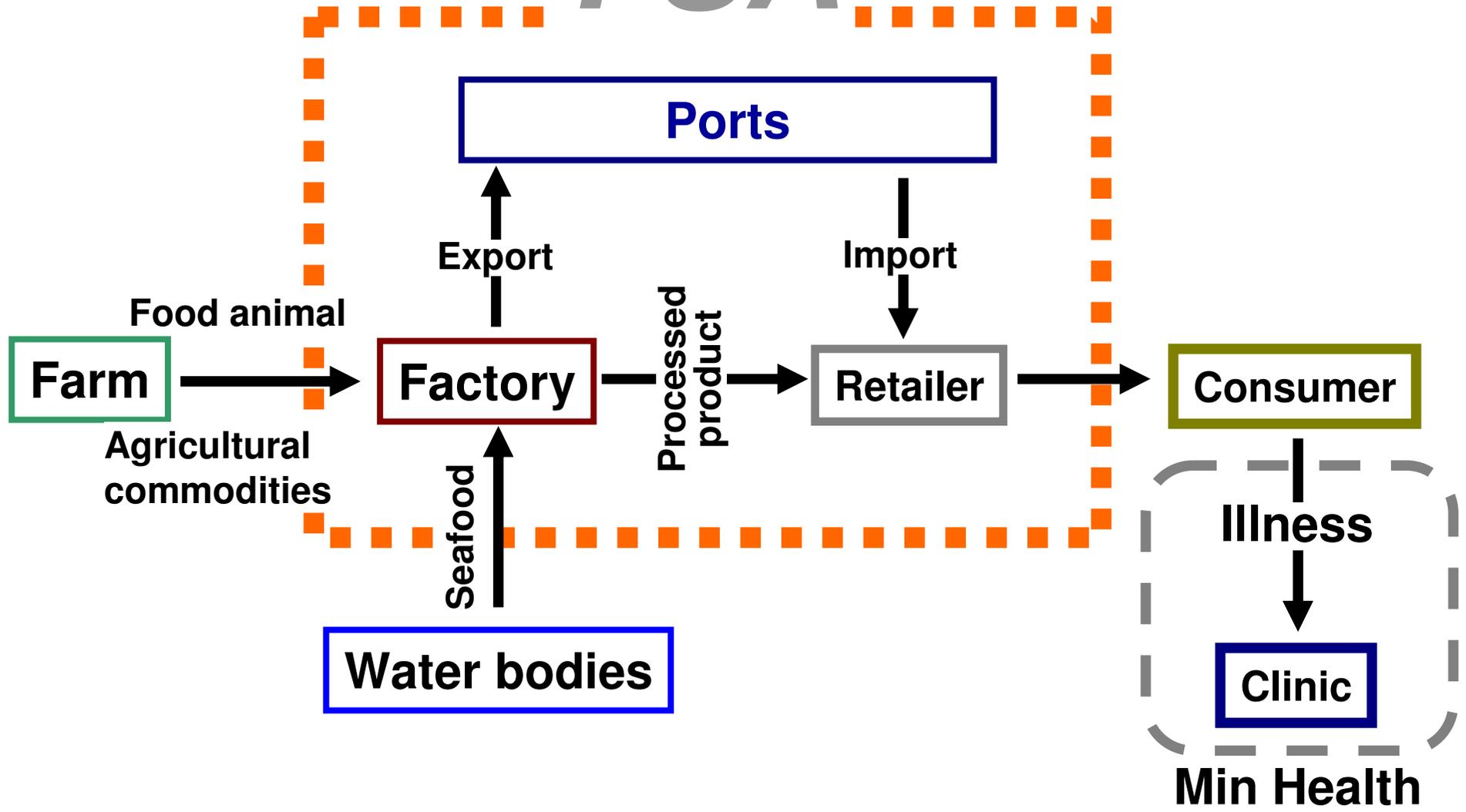




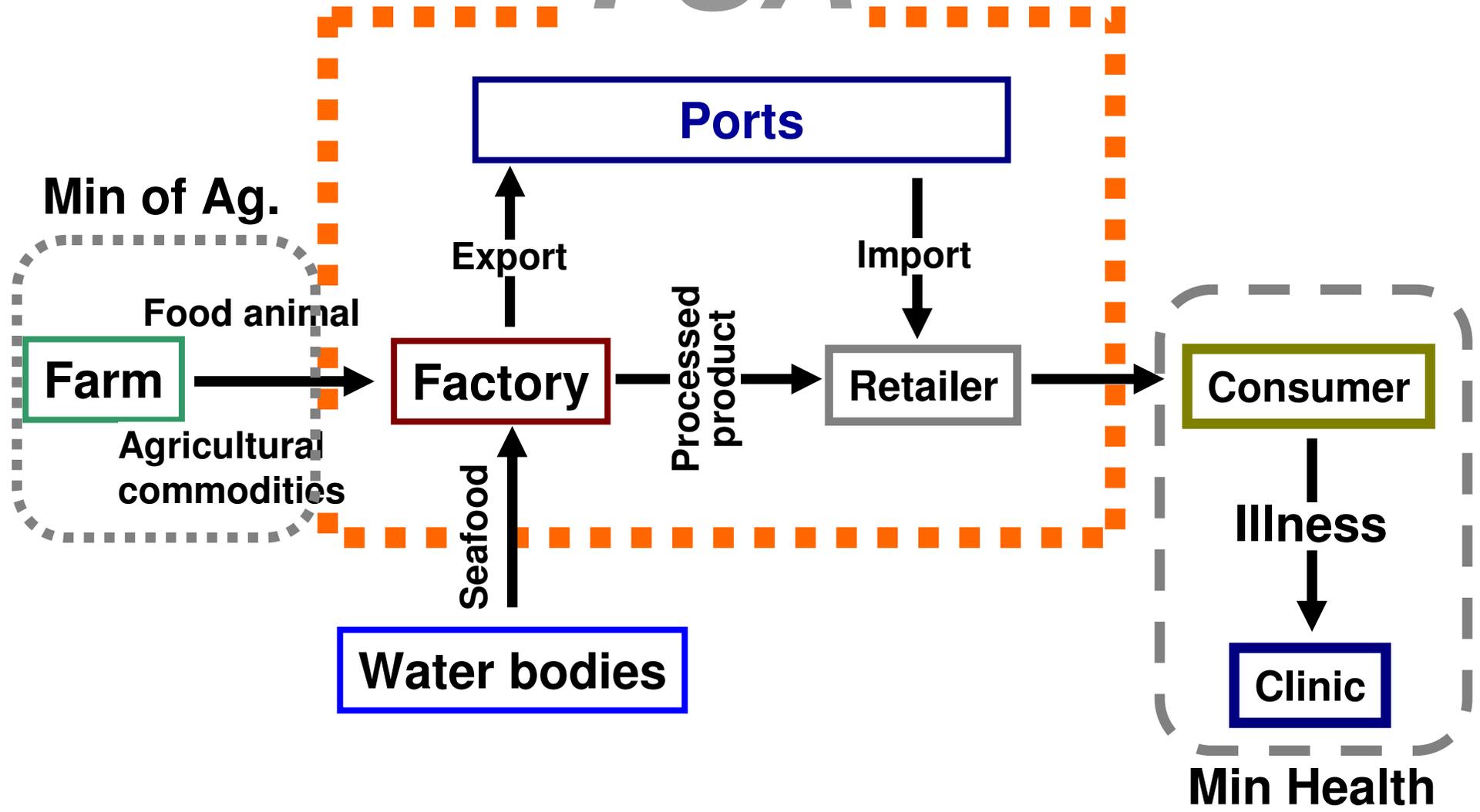
FSA

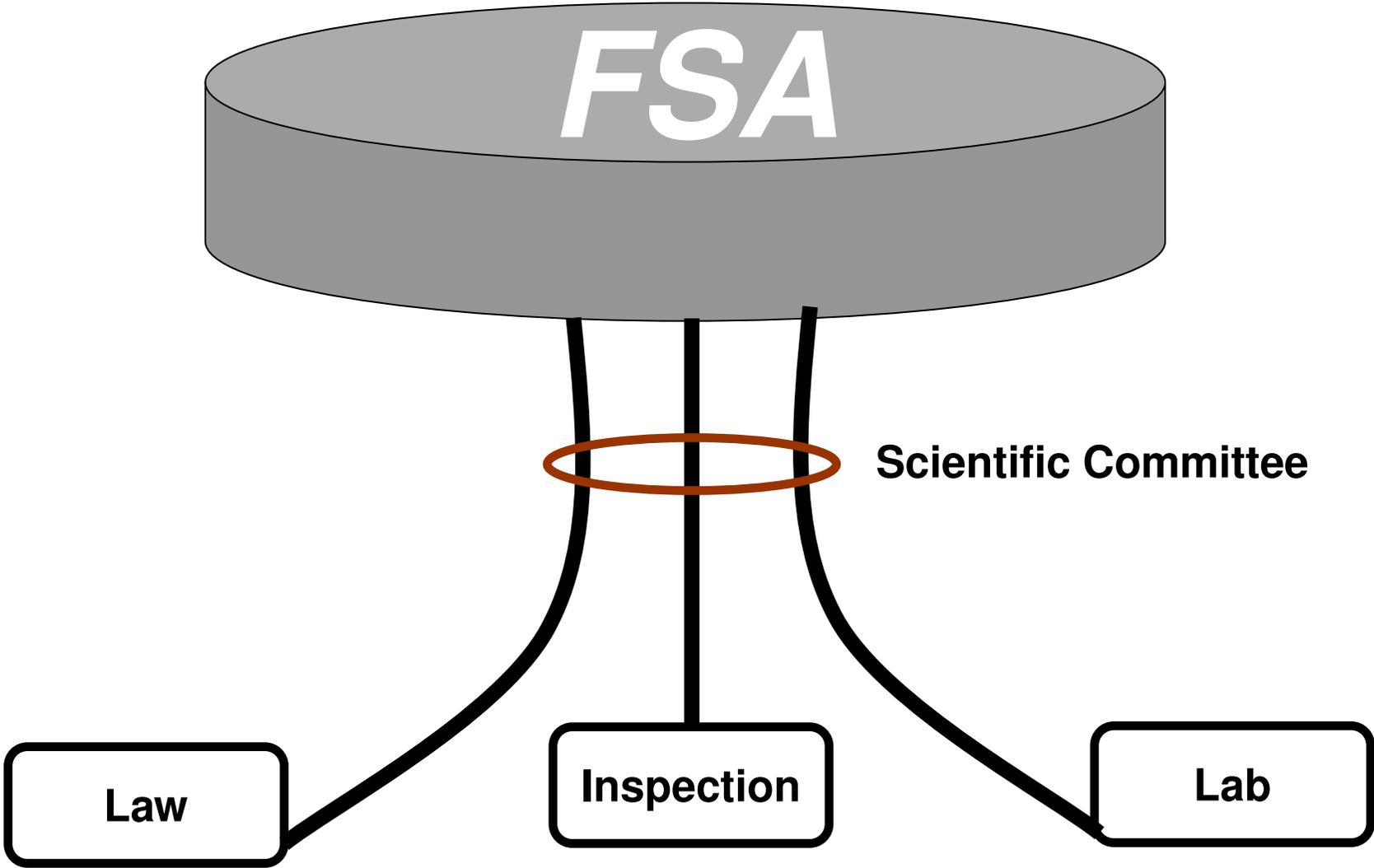


FSA



FSA





Labs: THE CENTRAL PIECE OF NEW FOOD SAFETY AGENCY

- **The new Agency needs to assess the safety of food reliably and timely.**
- **Success of the new Agency depends on the availability of:**
 - **Well-equipped labs**
 - **Highly-skilled analysts**
 - **Competent management**
 - **Well-defined procedures and methods to assess food safety.**

Objectives of the Lab Working Group

- Visit a sample of labs in Egypt.
- Determine if the labs, represented by the sample, are capable of handling all analyses required to assess the safety of food, at the present and in the near future.

WARNING

- THIS IS ONLY A SAMPLE!
- TIME OF VISITING EACH LAB WAS LIMITED!
- SOME LABS HAVE IMPROVED CONSIDERABLY SCINE OUR VISIT!!!

What to evaluate in a lab?

- **Facility**
 - Infra-structure
 - Equipment
- **Technical Staff**
 - Scientists. Analysts. Technicians.
 - Temporary workers.
- **Management**
- **Lab Functionality**

Labs Selected for visits

Ministry of Agriculture and Land Reclamation

- Regional Center for Food and Feed (RCFF)
- Animal Health Research Institute [Cairo Central lab and Alex branch]
- Central Lab of Residues Analysis of Pesticides and Heavy Metals in Food (CLRAPH)

Ministry of Trade and Industry

- General Agency for Export and Import Control (GOEIC) [Ports in Cairo, Alexandria, Port Said, and Suez]
- General Egyptian Agency of Standards and Quality (EOS)

Ministry of Health and Population

- Central Labs of Ministry of Health – Cairo
- Branch Labs (Alexandria, Kalyoubia, Port-Said)

Ministry of Investment

- Food Development Center- Kaha, Kalyoubia

Joint Venture

- Sokhna Port Lab, Ain-Sokhna

Independent labs

- SGS

Information Gathering and reporting

- **A questionnaire was assembled by the Lab Working Group and completed by lab representatives.**
- **Observations of lab evaluation team (A. Ayes, F. Tahan, and A. Yousef) are added during visits.**
- **Data of different labs were compared and analyzed.**
- **Preliminary report was compiled and distributed to labs.**
- **Some labs sent feedback on the preliminary report.**
- **Data are compiled, summarized and included in the final report.**

**OBSERVATIONS OF
LAB EVALUATION TEAM**

Ministry of Agriculture

Regional Center for Food and Feed, Giza (MALR)



Regional Center for Food and Feed, Giza (MALR)

- **Mandate is for feed (Min. Decree No. 525, 1980). Current major activities and training are consistent with this goal.**
- **Although this is a Governmental lab, it runs like a business.**
- **Large number of highly-qualified analysts and researchers.**
- **Modernization is urgently needed.**

Regional Center for Food and Feed, Giza (MALR)

- **Good news about a plan for a new building.**

FSA:

Can adapt to analyze food for various hazards, particularly for mycotoxins.

Animal Health Research Institute, Cairo Central Lab and Alexandria branch (MALR)



Animal Health Research Institute, Cairo Central Lab and Alexandria branch (MALR)

- **Mandate by Prime Min. Decree # 1186/2003.**
- **Impressive scientific staff with great expertise in analysis for biological hazards.**
- **Exceptional and unique experience in food-borne viruses and parasites.**
- **Can accommodate a large number of food samples of animal origin.**
- **Inauguration of a state-of-the-art facility in Luxor is a good news.**
- **Modest expertise in chemical hazards (e.g., analysis of pesticide by TLC).**

Animal Health Research Institute, Cairo Central Lab and Alexandria branch (MALR)



**Animal Health Research Institute,
Cairo Central Lab and Alexandria branch (MALR)**

FSA:

Can be charged with analyzing food of animal origin for zoonosis.

Central Lab of Residues Analysis of Pesticides & Heavy Metals in Food, Cairo (MALR)

- **Mandate to analyze residues in many imported and exported agricultural commodities.**
- **Pioneer in pesticide residues, heavy metals, and persistent organic pollutants (POPs) such as PCBs and Dioxins.**
- **Well-planned and accredited labs.**
- **A government lab that is run with a good business mentality.**
- **A good balance between resources and workload.**
- **A new building is being finished and it will double the lab capacity.**

Central Lab of Residues Analysis of Pesticides & Heavy Metals in Food, Cairo (MALR)

FSA:

Responsibility for pesticide residues and POP's and heavy metals.

Ministry of Trade and Industry

GOEIC: Cairo, Alexandria and Port Said labs (MTI)



GOEIC: Cairo, Alexandria and Port Said labs (MTI)

- **An impressive facility and collection of state-of-the-art instruments.**
- **Technical staff is promising even though not all specializations are represented.**
- **Good record of accreditation in microbial tests.**
- **A great potential for analyzing a very large number of samples.**
- **A new GOEIC lab has been built recently in Aswan.**
- **Professional hands-on training is needed to maintain staff expertise.**
- **Workload is low considering the resources and budget.**

GOEIC: Cairo, Alexandria and Port Said labs (MTI)

FSA

With expert support from ministries of Health and Agriculture, these labs can cover food imports.

General Egyptian Agency for Standards and Quality (EOS), Cairo (MTI)

- **EOS issues Egyptian standards for different food commodities.**
- **The Lab Working Group observed a good collection of new instruments funded by IMC (GC-MS, HPLC and TLC scanner); these instruments are underutilized but may be used in various food analyses.**
- **However, the current facility, expertise, and infra-structure are not suitable for food safety assessment.**

Ministry of Health Labs

Ministry of Health Labs: Cairo, Kalyoubia, Alexandria, and Port Said.

- **Central Lab in Cairo and some branches lab are very well-equipped.**
- **Central Lab alone analyze > 200,000 samples/year.**
- **Wide-spread labs; present in almost all governorates.**
- **Many qualified experts in various aspects of human health.**
- **Great attention to water analysis, matched with good facility and expertise.**
- **Central labs provides the technical training and resources for all the branches; this maintains uniformity in analysis.**
- **Large discrepancies between central and branch labs.**
- **Some branch labs are neglected.**
- **Although methods are uniformly applied in all labs, some are very out-dated.**

وزارة الصحة والسكان
الادارة المركزية للمعامل

دليل

الاختبارات المعملية الاساسية
ونظم الجودة لمعامل وزارة الصحة



Ministry of Health Labs: Cairo, Kalyoubia, Alexandria, and Port Said.

FSA:

- **Great asset: facility and expertise**
- **Most capable in adapting their labs to analyze food for emerging diseases including viruses and parasites.**

Microbiology



Modern equipment



Animal colony



Data Recording and Reporting



Private Labs

SGS

a private analytical lab



SGS, Giza (Private)

- **A great concept for analysis of food in Egypt.**
- **High level of professionalism and marketing.**
- **Interest in Food Hospitality and supermarket samples.**
- **Currently the lab is still under development, and its capabilities are limited.**
- **Very ambitious plan to expand their facility and establish a branch outside Cairo.**

Sokhna Port Lab, Ain Sokhna, Suez (Private)



Sokhna Port Lab, Ain Sokhna, Suez (Private)

- **Great integration of governmental analytical expertise from the Ministry of Health and GOEIC.**
- **Great facility and technical staff.**
- **Excellent private management.**
- **A plan exists to add labs for viruses and parasites.**
- **Can accommodate much larger analytical load than is currently handled.**
- **Great personnel confidence and morale.**
- **A great example of a well-managed modern analytical lab.**

Conclusion

Sampling and sample handling; Relevance to accurate lab analyses

- **Inspectors**

- Previous lab experience.
- Work independent of labs.
- Good techniques in sampling, sample handling, and irregularity reporting.
- Undergo rigorous periodical training to remain familiar with labs.

- **Excessive sampling and analyses**

- Duplicity of analysis: a serious problem, should be avoided.
- Excessive transportation should be avoided.

Lab Analysis Priorities

- **Lab priorities**

- Safety (frequently)
- Adulteration (intermittently)
- Composition (Sporadically)

- **Food analyzed priorities**

- High-risk (frequently)
- Intermediate risk (intermittently)
- Low-risk (Sporadically)

- **Contingency analyses**

- Non-routine analyses triggered by disease outbreaks.
- Reassess food's risk status based on statistics.

Recommendations

As a priority, FSA should rather make good use of existing good labs than building new labs.

- Integrating current lab into the FSA without disrupting their natural origin and affiliation.
- Current labs can accommodate the surge in food safety analysis till 2012, however, there is an urgent need to establish modern labs in select provinces.

The new FSA should support the current labs through:

- Help in accreditation.
- Training the technical and management staff.
- Funding the acquisition of select equipment.
- Covering costs of sample analysis.

Recommendations (Cont'd)

- **Setting uniform analysis criteria.**

The new Agency needs to set uniform rules for food sampling and analysis with emphasis on food contaminants (biological or chemical) that pose direct health risks, and less emphasis on descriptive and proximate analysis of food.

- **The labs affiliated with FSA may need to be identified by specialization based on one or a combination of the following factors:**

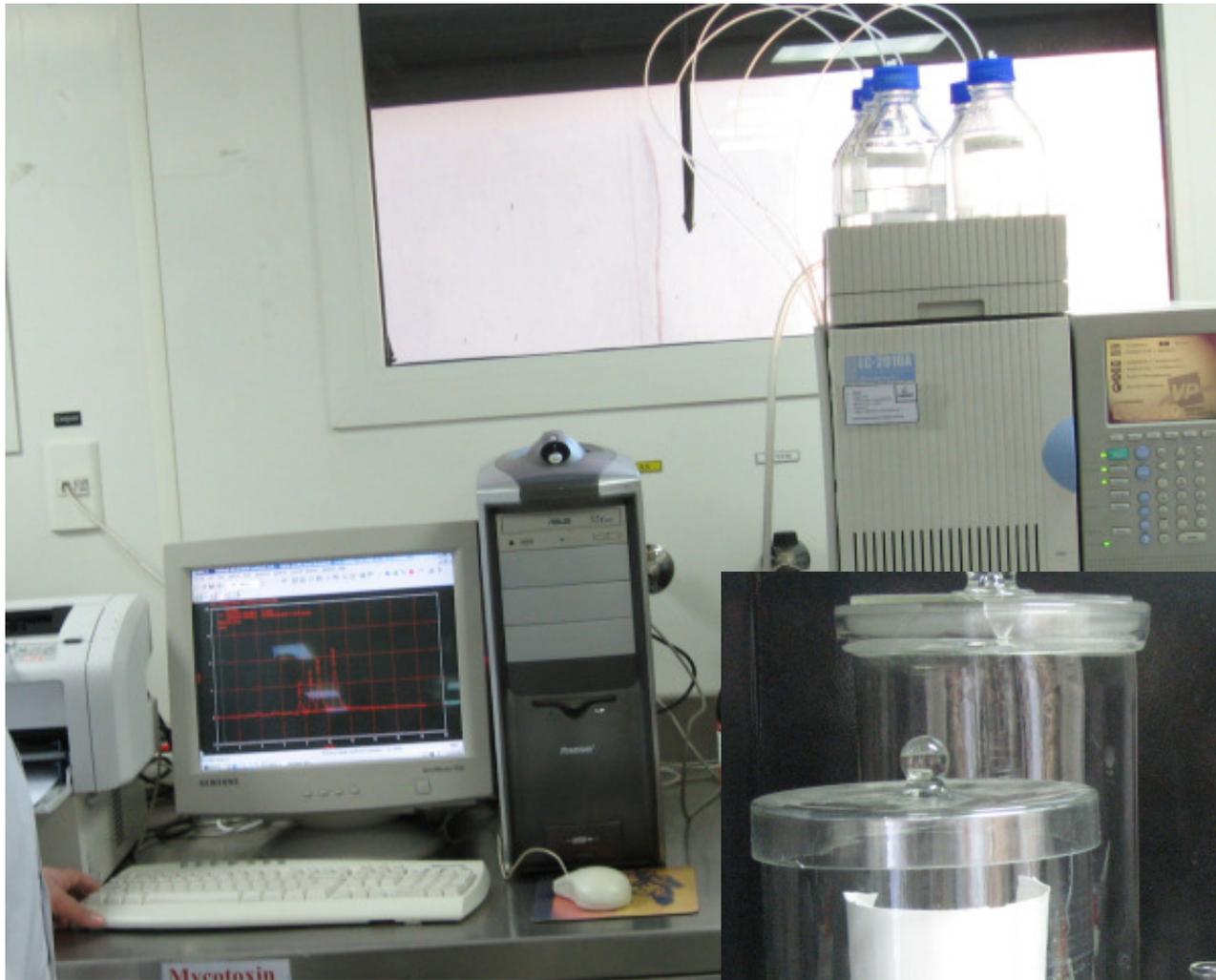
- Type of analysis carried out (e.g., biological vs. chemical hazards)
- Nature of food analyzed (e.g., foods of plant vs. animal origin)
- Source of food (local, import or export)
- Geographic location (Cairo, ports, delta, upper Egypt, remote locations)



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Thank You



محافظة الإسكندرية
-برية الشؤون الصحية
مراقبة الأغذية

٩٤١٢٩ - ٩٤١٣٠

قسمة تم تحصيل مبلغ جنيه لزوم تحليل اللستيريا بالقسمة
تاريخ تحرير الشهادة الجمركية ٢٧ / ١٢ / ٢٠٠٧

كمية : بوليصة :
لنشأ : الباخرة :

استمارة ارسال عينات للمعامل
ستلزم اتباع

الرقم السري
٢٠٠٧ / ١٢ / ٣٠

لجهة الراسلة : قسم مراقبة الأغذية بجمرك الدخيلة

تاريخ إرسال العينة : ٢٠٠٧ / ١٢ / ٣٠

ريخ أخذ العينة : ٢٠٠٧ / ١٢ / ٣٠

نوع الفحص المطلوب الخطأ وحقه والاصلاصه

نوع العينة : خبز رطل مع تلات شبت

تسمية المعروض بها البضاعة للبيع : خبز رطل مع تلات شبت

بيانات تساعد على الفحص :
ملاحظات :
اسم أخذ العينة وتوقيعه وبصمته :
لرفقات :
مصاد تاريخ :
مصاد :



مجلس علماء دارالافتاء دارالافتاء دارالافتاء

تاریخ: 1/1/1409ھ - فیروز آباد - ضلع فیروز آباد - پنجاب

محمد رفیق
مدرسہ اسلامیہ

محافظة الإسكندرية

مديرية الشؤون الصحية - المعامل الرئيسية

قسم فحص الأغذية - جمارك اسكندرية

رقم العينة: ٧٤٦٣-٩٤١٢٩

تاريخ ورود العينة: ٣٠ يناير، ٢٠٠٧ تاريخ التصدير: ٠٣ يناير، ٢٠٠٨

نوع العينة: مستلزم إنتاج خيار مطبق مع لفوات شيت

رقم الكود: ٢٧٥٩ / ٢٠١٢

نوع الفحص المطلوب: كيميائي، بيكتريولوجي، سموم

بيانات الرسالة:

الصفة:

بولصة:

النتيجة:

سيرانكا

الوزن:

الباردة:

نتيجة التحليل

العينات برقم كودى ٢٧٥٩ / ٢-٦ محتفظه بمواصفات الطهارة وعالية من علامات التلف كيميائيا والفحص البيولوجي سليم للتسمم الحاد ولم يعثر لها على بكتريا التسمم الغذائي أو أى بكتريا ضارة أخرى . ملحوظة :

وعلى مصلحة الجمارك بالتنسيق مع الهيئة العامة للصادرات والواردات التأكد من صحة الشاذج والشهادات والأحكام .

رئيس أشادة بيكتريولوجي

رئيس قسم الكيمياء والسموم

بمكتب

مدير المعامل

ش.م.م. المعامل الرئيسية
الإسكندرية