

## Standardization of Remote Sensing Technology in China

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**September 2012**

# Outline



**1 Standardization of RS Technology In China**

**2 International Situation in Standardization of RS Technology**

**3 Suggestions for Standardization of RS Technology**





### Standardization will:

- Promote knowledge and technology on Earth observation to be put into practice and on the market
- Help disseminate and implement innovative knowledge of earth observation

### China highlights the standardization effort on remote sensing:

- National Technical Committee 327 on Remote Sensing of Standardization Administration of China (SAC/TC 327) was established on March 2008.
- SAC/TC 327 is authorized by SAC to be responsible for the technical work of national standardization of remote sensing technology in China.
- SAC/TC 327 has close cooperation with the National Remote Sensing Center of China (NRSCC).



## Development

- set up an interaction mechanism between the studying and the development of national standards
- achieved inspiring results in capacity building, development and revision of national standards, and so on.

## Main work

- promote and manage the development/revision of national standards on remote sensing
- maintain a dedicated website for information sharing
- design the framework of remote sensing standard system





- 5 standards in action;
- 11 standards being considered.

### Standards in action

No.	Title
1	Test methods of space-borne multi-spectral remote sensing camera with wide field of view
2	Interface for remote sensing satellite raw data record and interchange format
3	Specifications for vegetation index product from satellite remote sensing
4	Technical rules for producing 3D digital products in scale of 1:10 000 1:50 000 based on airborne InSAR
5	Spectral calibration technology in laboratory for hyperspectral sensor





## Standards being considered

No.	Title
1	Basic terms of remote sensing technology
2	Classification and scope of remote sensing technology
3	Validation specification for optical remote sensing product
4	Evaluation index system for optical payloads
5	Spectral measurement for urban land-cover
6	Specifications for inland water spectra measurement
7	Specifications for remote sensing image product based on administrative divisions
8	Specifications for remote sensing image product based on the national topographic maps subdivisions
9	Quick look data format standard for remote sensing satellite
10	Quality evaluation on preprocessed LiDAR product
11	Quality evaluation on preprocessed hyperspectral product





# Website of SAC/TC 327



全国遥感技术标准化技术委员会 - Microsoft Internet Explorer

文件(F) 编辑(E) 查看(V) 收藏(A) 工具(T) 帮助(H)

后退 前进 刷新 地址 http://www.rsstandard.cn/ 转到 链接



## 全国遥感技术标准化技术委员会

首页 标委会 秘书处 动态信息 标准制修订 知识法规 报告成果 联系我们

◆ 转发关于举办八月份“标准起草人和审查人员培训班”的通知 ◆ 转发关于举办2012年国际标准化综合知识培训的通知 ◆ 转发中国标准化研究院7月份“标准起草人和审查人员...”

### 动态信息

◆ 秘书处参加2012年国际标准化综合知识培训 (2012-08-01)

◆ 转发关于举办八月份“标准起草人和审查人员培训班”的通知 (2012-07-10)

◆ 转发关于举办2012年国际标准化综合知识培训的通知 (2012-07-04)

◆ 转发中国标准化研究院7月份“标准起草人和审查人员培训班”... (2012-06-14)

◆ 秘书处派员参加IEC国际标准化综合知识培训 (2012-05-10)

◆ 转发国标委关于举办IEC国际标准化综合知识培训的通知 (2012-04-25)

### 标准制修订

◆ 关于征求《遥感卫星原始数据记录与交换格式接口》(征求意见稿)意见的通知 **new**

◆ SAC/TC327 归口国家标准计划项目

### 报告成果

◆ 遥感技术标准国内外现状 (2008-11-14)

◆ 全国遥感技术标准化技术委员会2012年工作计划 (2012-02-01)

◆ 全国遥感技术标准化技术委员会第五次工作会议纪要 (2012-01-05)

◆ 全国遥感技术标准化技术委员会2011年工作总结 (2011-12-27)

◆ 全国遥感技术标准化技术委员会“十二五”标准化建设部署及2... (2011-03-01)

◆ 全国遥感技术标准化技术委员会2010年工作总结 (2011-01-16)

### 友情链接

国家标准化管理委员会

中国科学院

中国科学院光电研究院

CNIS 中国标准化研究院

OGC

CSSN 中国标准服务网

ISO International Organization for Standardization

fgdc

### 标委会

全国遥感技术标准化技术委员会是国家标准化管理委员会批准成立的标准化技术工作组，受国家标准化管理委员会领导，负责全国遥感技术标准化工作。

### 秘书处

全国遥感技术标准化技术委员会挂靠于中国科学院光电研究院（以下简称光电院）。光电院组建于2003年11月，作为中国科学院光电信息研究所的下属单位，承担国家光电信息领域的标准化工作。

### 知识法规

标准是对一定范围内的重复性事物和概念所做的统一规定。它以科学、技术和实践经验的综合成果为基础，以获得最佳秩序，促进最佳社会效益为目的。

本地 Intranet

## Main modules:

- News & Information
- Reports & achievement
- Standard development & revision
- Knowledge of standardization
- About SAC/TC 327

English edition of the website is to be built.

<http://www.rsstandard.cn>

# Framework of Remote Sensing Standard System



RS standard system : Framework of standard system + List of standards

## Framework of standard system :

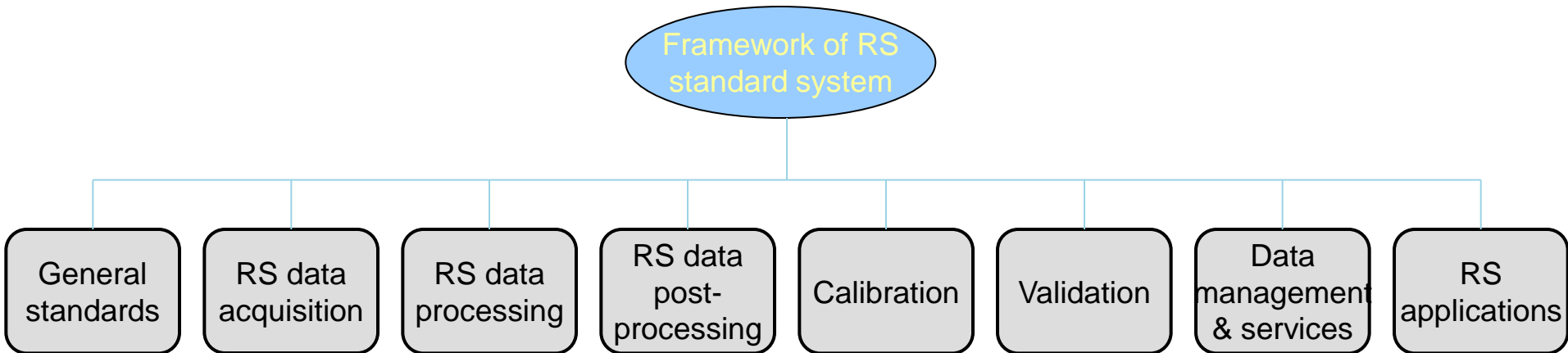
- Delimitate the special areas of TC 327's work;
- Convenient for arranging priority of RS standards;
- Easy to organize development/revision of standards in order.



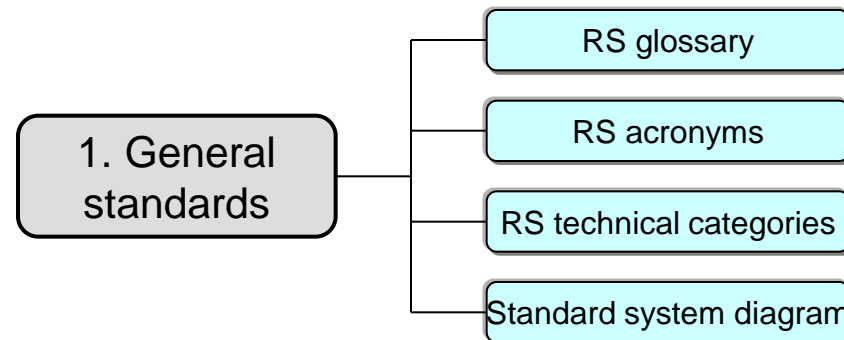




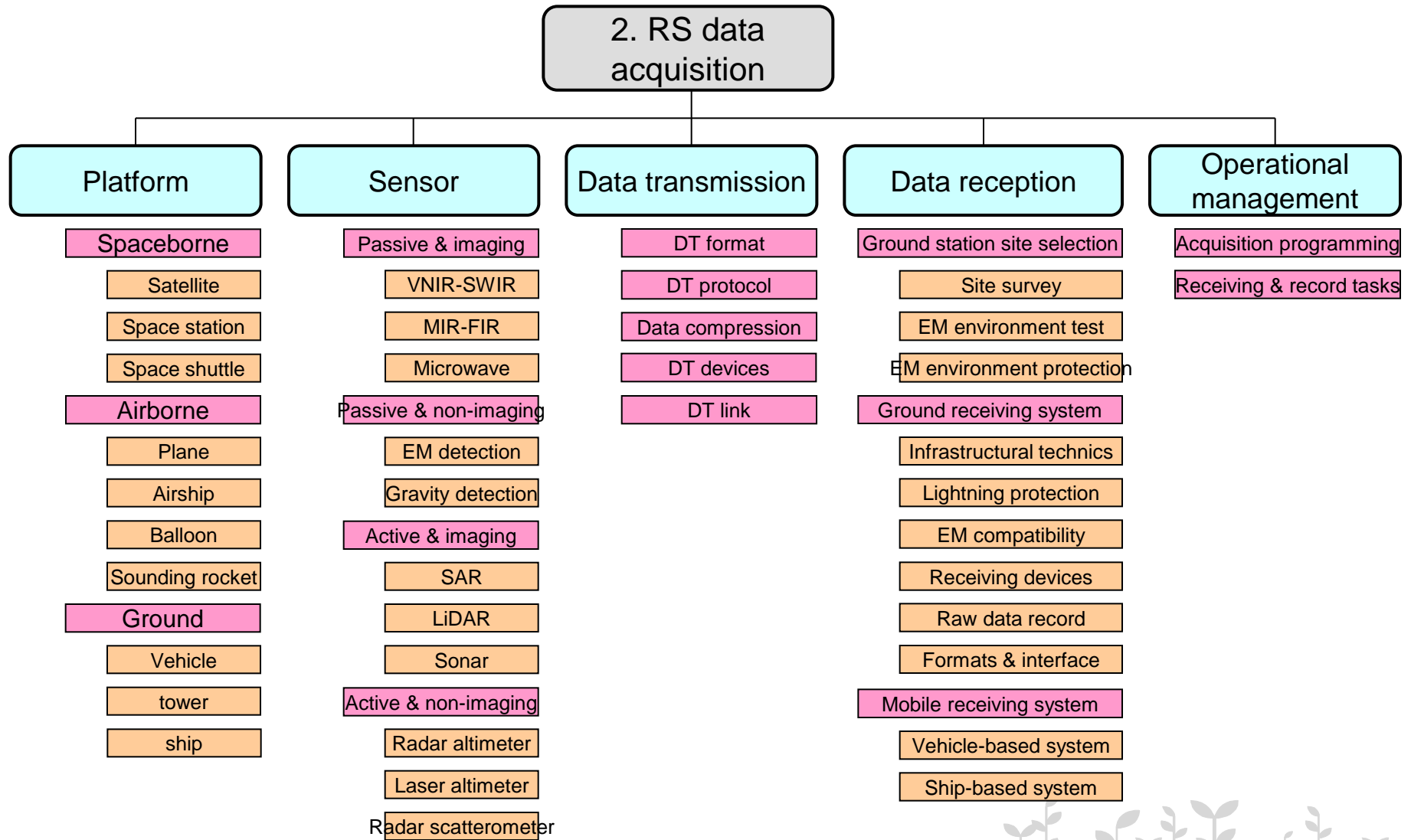
## Top level :

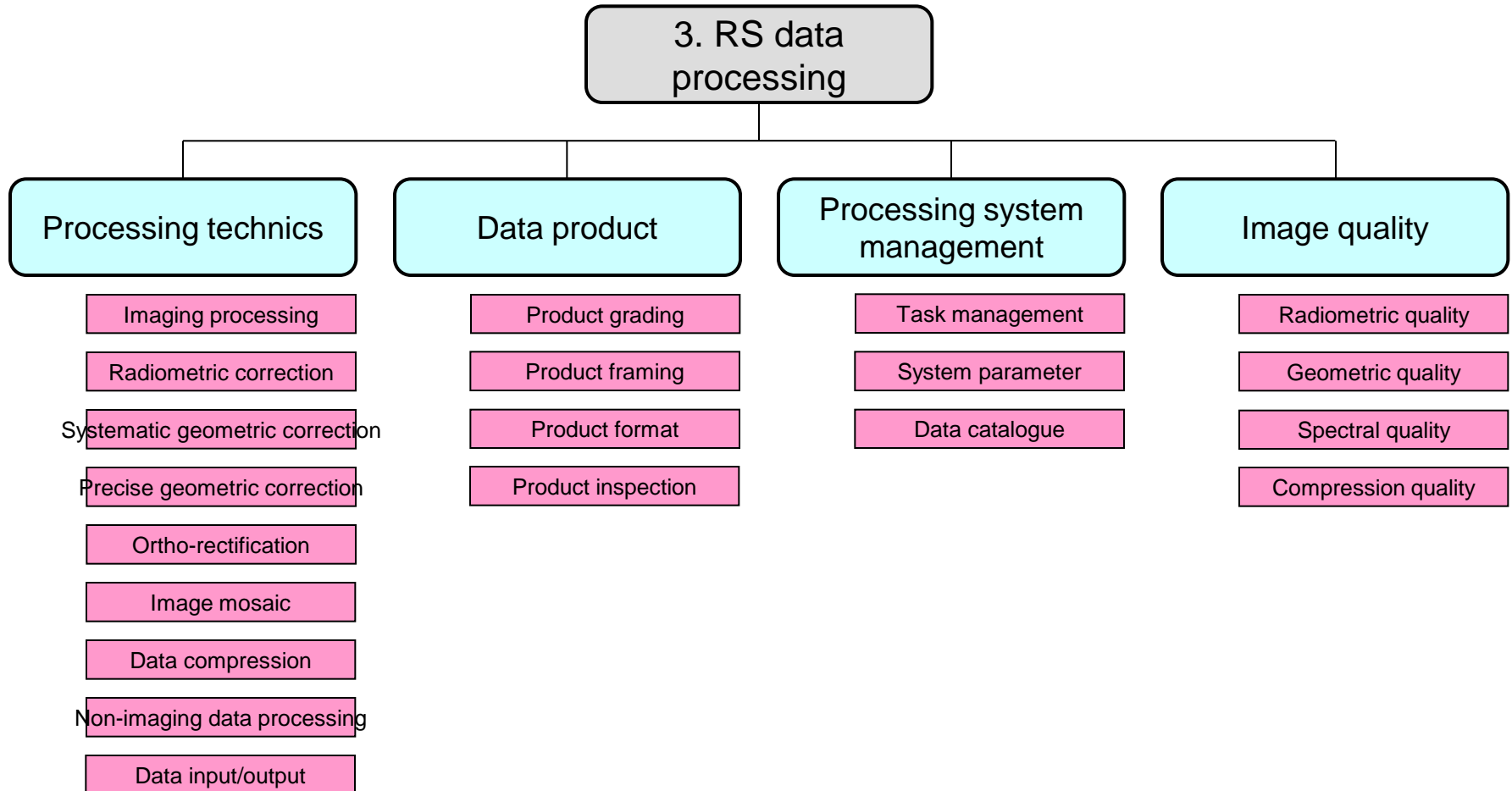


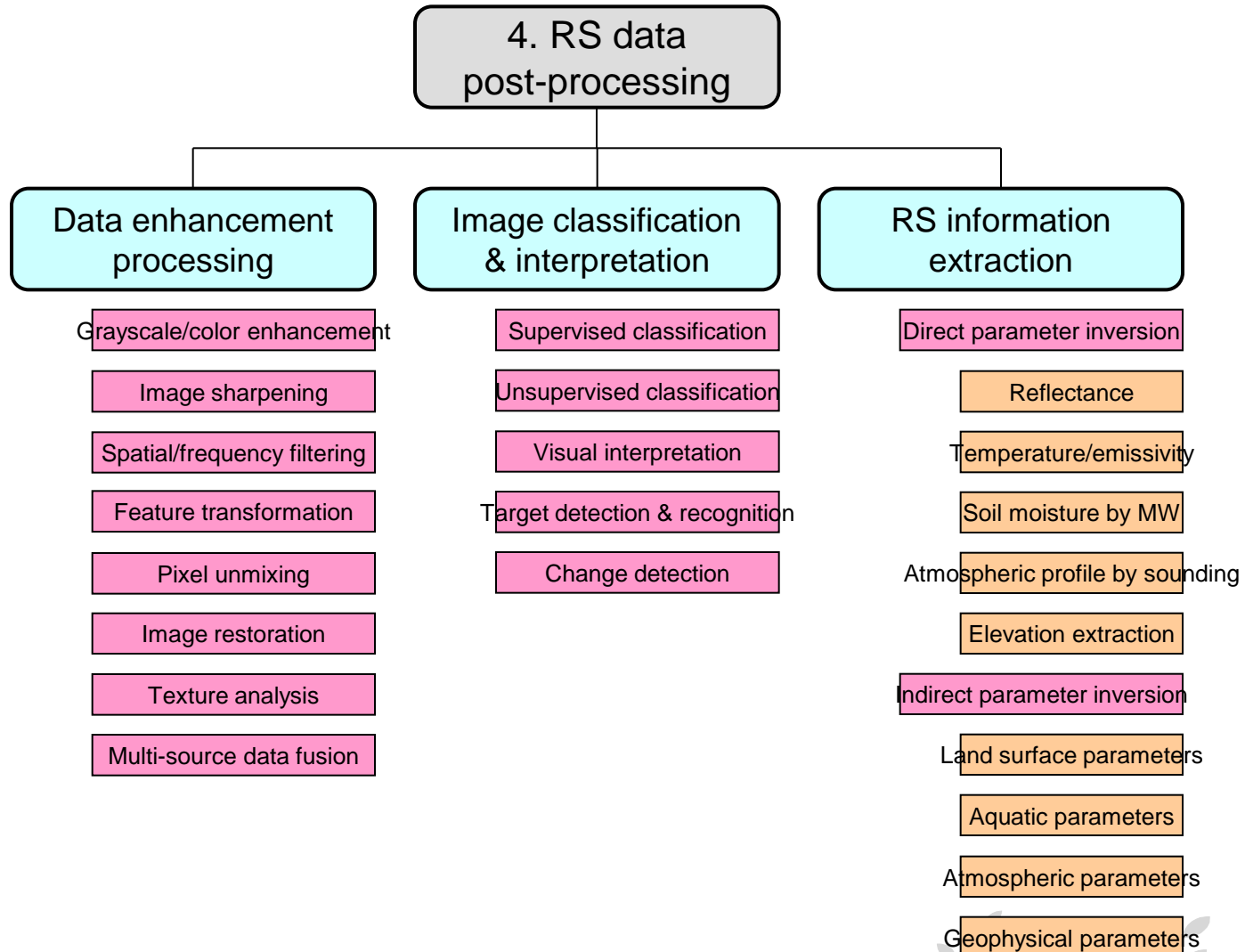
## Sub-levels :



# Framework of Remote Sensing Standard System







# Framework of Remote Sensing Standard System



## 5. Calibration

Lab calibration

On-board calibration

Vicarious calibration

Cross calibration

## 6. Validation

Instrument & apparatus

Site & point choosing

Ground measurement

Scale conversion

Evaluation methods

## 7. Data management & services

Data visualization

Data archiving

Data security

Data dissemination

Data sharing

Expert knowledge base

Software testing

Document management

## 8. RS applications

Environment

Hazard

Resource survey

Surveying and mapping

Weather/climate

Farming/forestry

Ecology

Inland water/ice/snow

Estuary/coastal zone

Ocean

Soil

Geology/minerals

Urban

Traffic

Tourism/archaeology

***Welcome your kind advices about this “Framework of remote sensing standard system”, and you can discuss it within the meeting, or feedback to email: [xhwang@aoe.ac.cn](mailto:xhwang@aoe.ac.cn)***



## International Organization for Standardization (ISO)

In ISO's over 220 TCs, the following eight TCs have certain correlation with remote sensing technology :



ISO/TC 20 "Aircraft and space vehicles"

ISO/TC 42 "Photography"

ISO/TC 130 "Graphic technology"

ISO/TC 146 "Air quality"

ISO/TC 147 "Water quality"

ISO/TC 172 "Optics and photonics"

ISO/TC 190 "Soil quality"

ISO/TC 211 "Geographic information/Geomatics" / WG 06 "Imagery"



**Remote Sensing**

A new ISO/TC is required to support the development of RS standards.





- CEOS is one of organizations in cooperation with ISO, but no liaisons have been allocated. (国际组织是否可以成为成员? )
- WGISS has assigned its liaisons to ISO/TC 211:  
Dr. Wyn Cudlip & Mr. Lorant Czaranas

### Suggestion

- WGCV may advocate an motion to promote the establishment of the dedicated ISO/TC for remote sensing.
- Recent work:
  - Submit an proposal to CEOS plenary
  - Participate in ISO/TC 211 35<sup>th</sup> Plenary and associated meetings (December 8-12, 2012, Jeddah, Saudi Arabia)



A scenic landscape photograph featuring a calm body of water in the middle ground. In the foreground, several dark branches of cherry blossom trees are in full bloom, with numerous light pink flowers and some green buds. The background consists of rolling green hills under a clear, light blue sky. A small boat is visible on the water in the distance. The overall atmosphere is peaceful and spring-like.

*Thank you !*