



GS1 Standards: Conformance and Certification

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The global language of business

www.gs1.org



What is “GS1 SOLUTIONS”?

- A department within GS1 Global Office closely linked with BarCodes, eCom, GDSN and EPC business lines and Standards Development, Marketing, Customer Service and Training functions
- We utilise various standards and technologies to solve specific supply chain and business problems
- We co-ordinate the fulfillment of requirements for their successful implementation across the GS1 MO Community



What Do We Do?

- Research, lead and organise User Groups to develop supply chain solutions and standards
- Co-ordinate groups of MOs interested in a supply chain and business area within the GS1 strategic plan scope
- Support GS1 MOs with expert advice, training, web document library and information tools
- Liase and represent GS1 within international business and intergovernmental organisations
- Promote GS1 solutions at conferences, industry forums, professional journals and trade press



How To Get Involved Today?

GS1 Traceability Solutions

- MO Interest Group
- GS1 Traceability Council - GTC

GS1 Patient Safety Solutions

- MO Interest Group
- GS1 Healthcare User Group - HUG

GS1 Upstream Solutions

- GCI GUSI Work Group

GS1 Solutions for Transport and Wharehousing

- MO Interest Group
- GS1 Logistics Forum – GLF

GS1-NATO Technical Cooperation Programme

- MO Interest Group
- Asset Tracking Working Group (NATO)
- Group of National Directors on Codification (NATO)



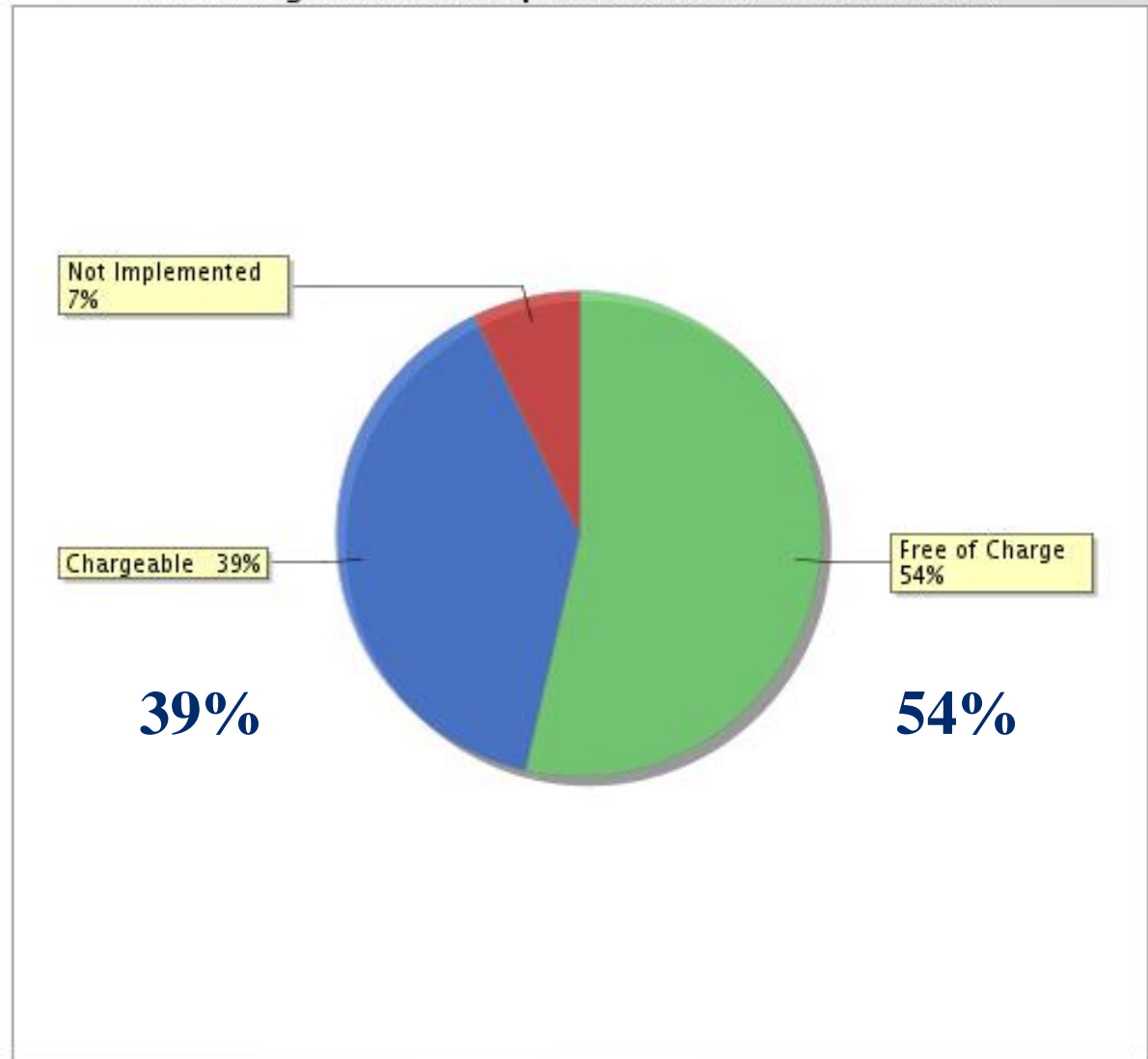
RESULTS OF A SURVEY OF GS1 MOs (March 2006)





Which of the following services apply to your MO?

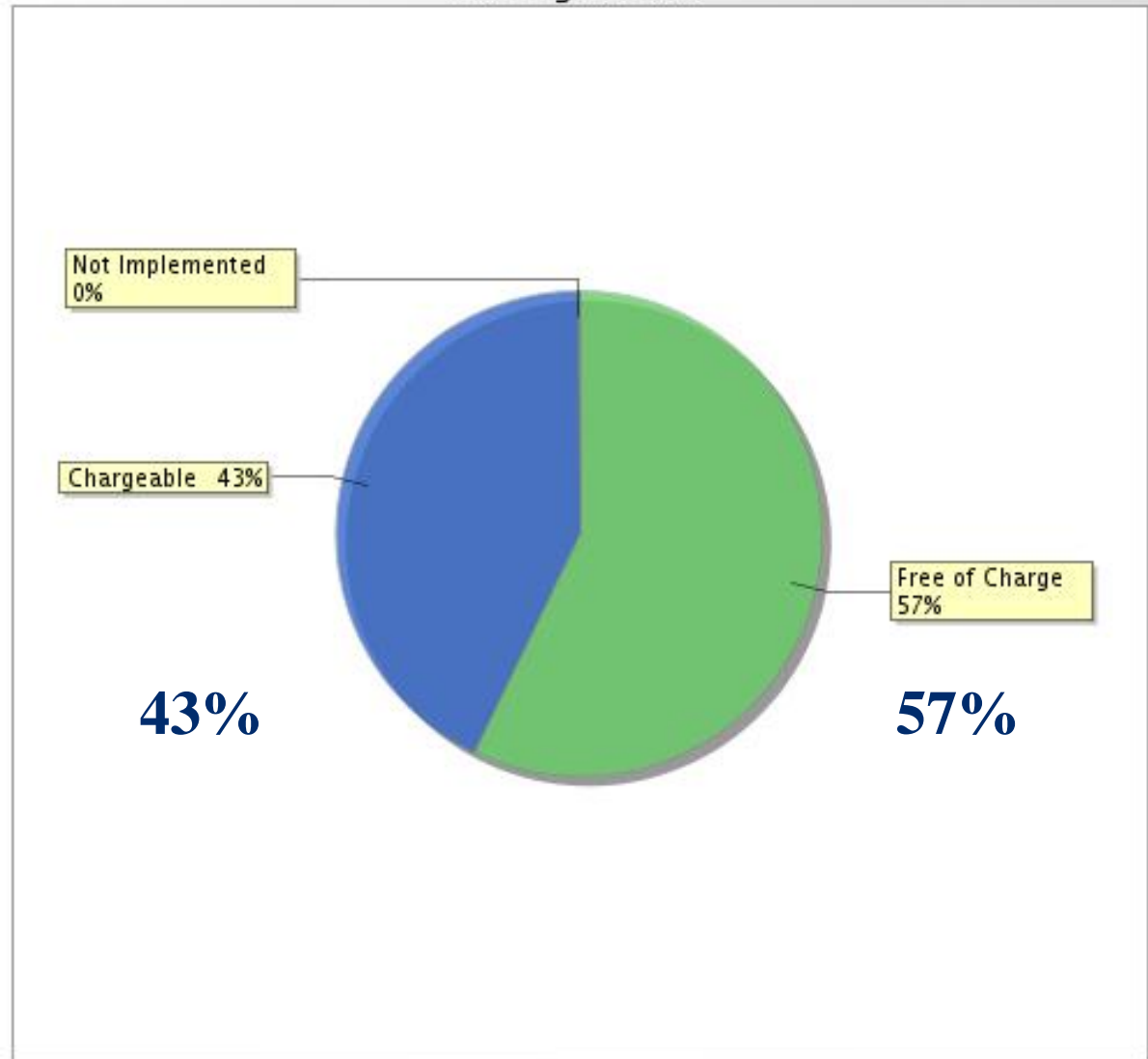
Consulting service on implementation of GS1 standards



● Free of Charge = 15 ● Chargeable = 11 ● Not Implemented = 2

Which of the following services apply to your MO?

Training courses

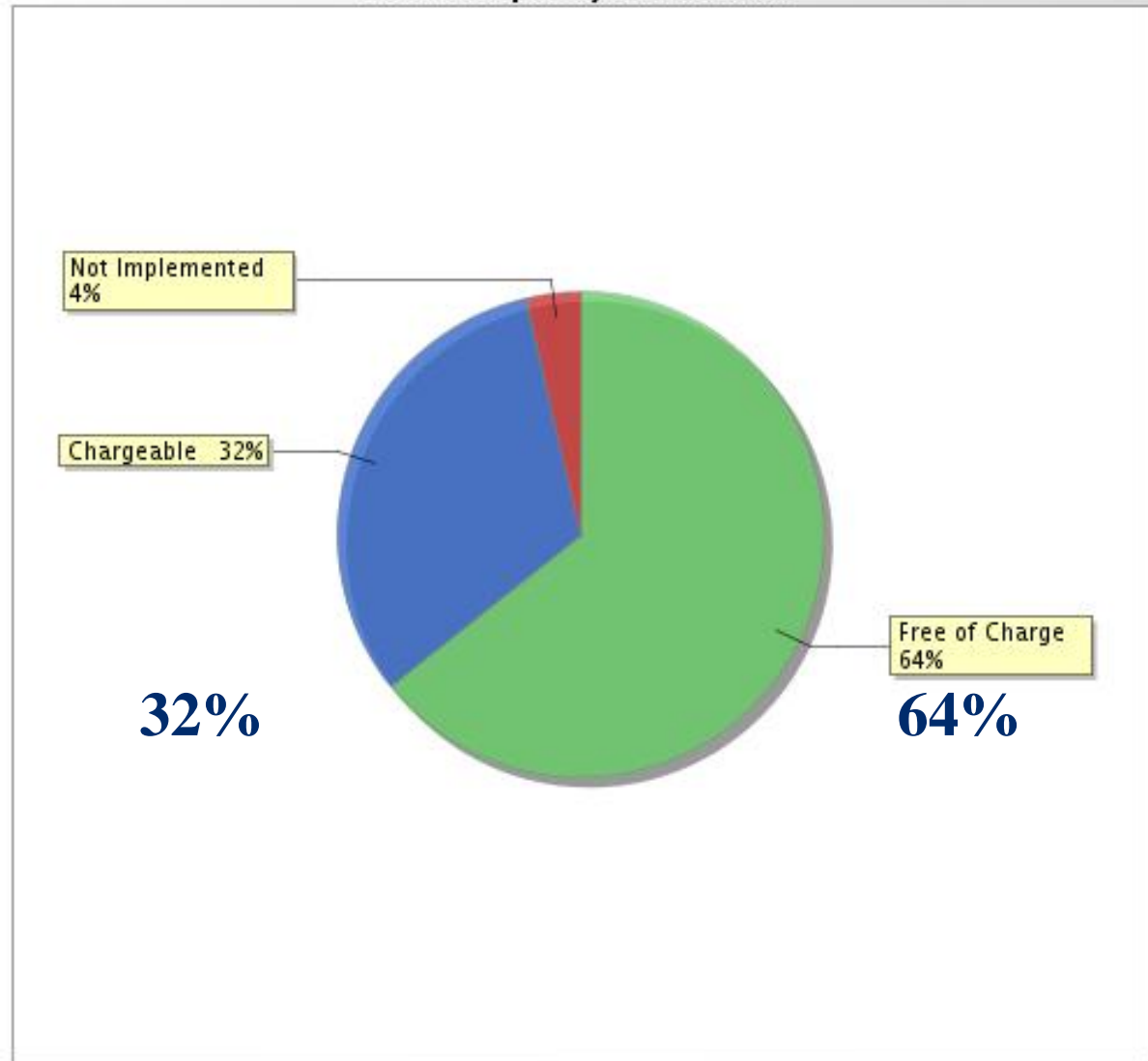


● Free of Charge = 16 ● Chargeable = 12 ● Not Implemented = 0



Which of the following services apply to your MO?

Barcode quality verification

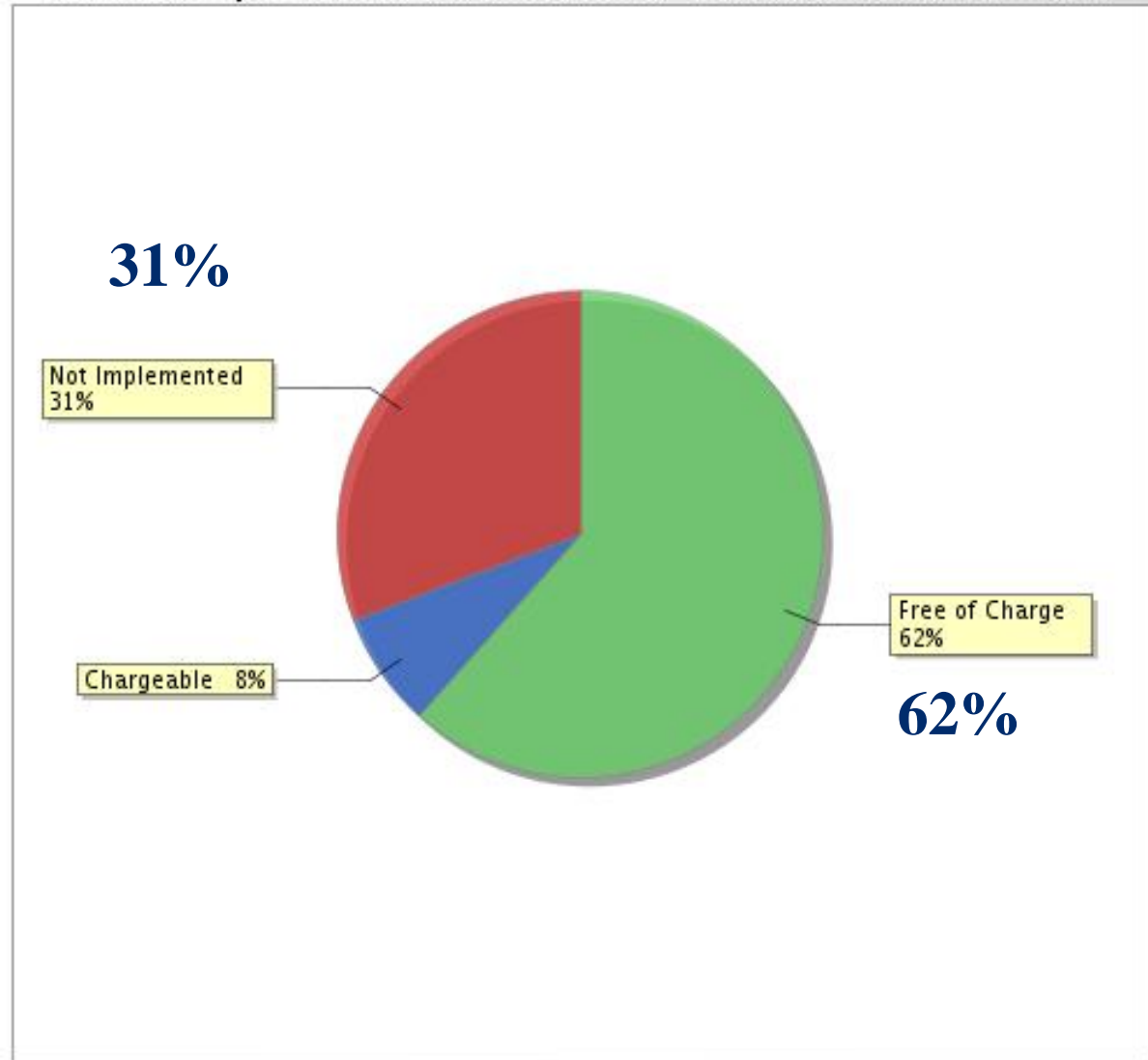


● Free of Charge = 18 ● Chargeable = 9 ● Not Implemented = 1



Which of the following services apply to your MO?

Verification process for the allocation of GS1 identification numbers

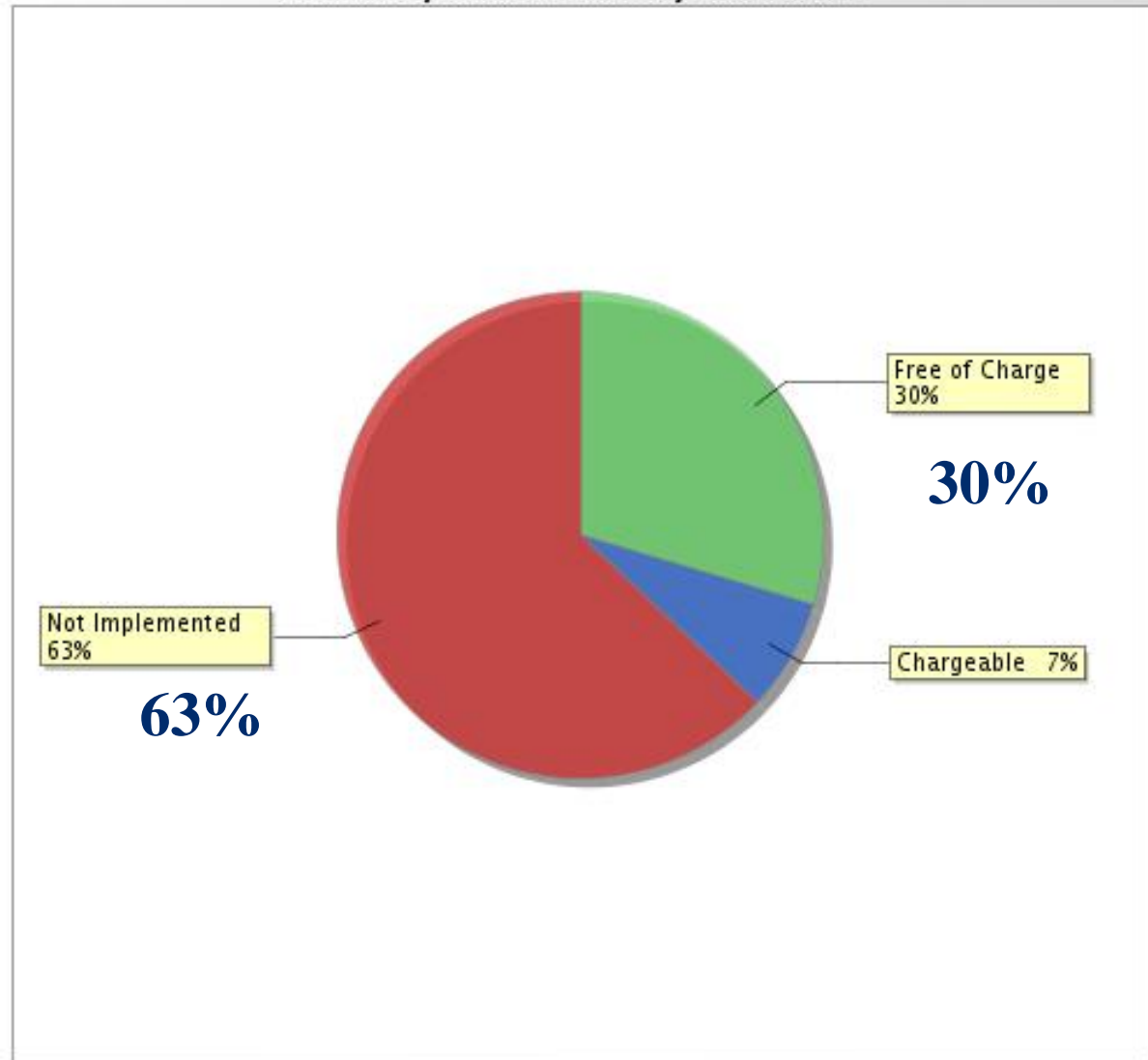


● Free of Charge = 16 ● Chargeable = 2 ● Not Implemented = 8



Which of the following services apply to your MO?

EANCOM / XML conformity verification

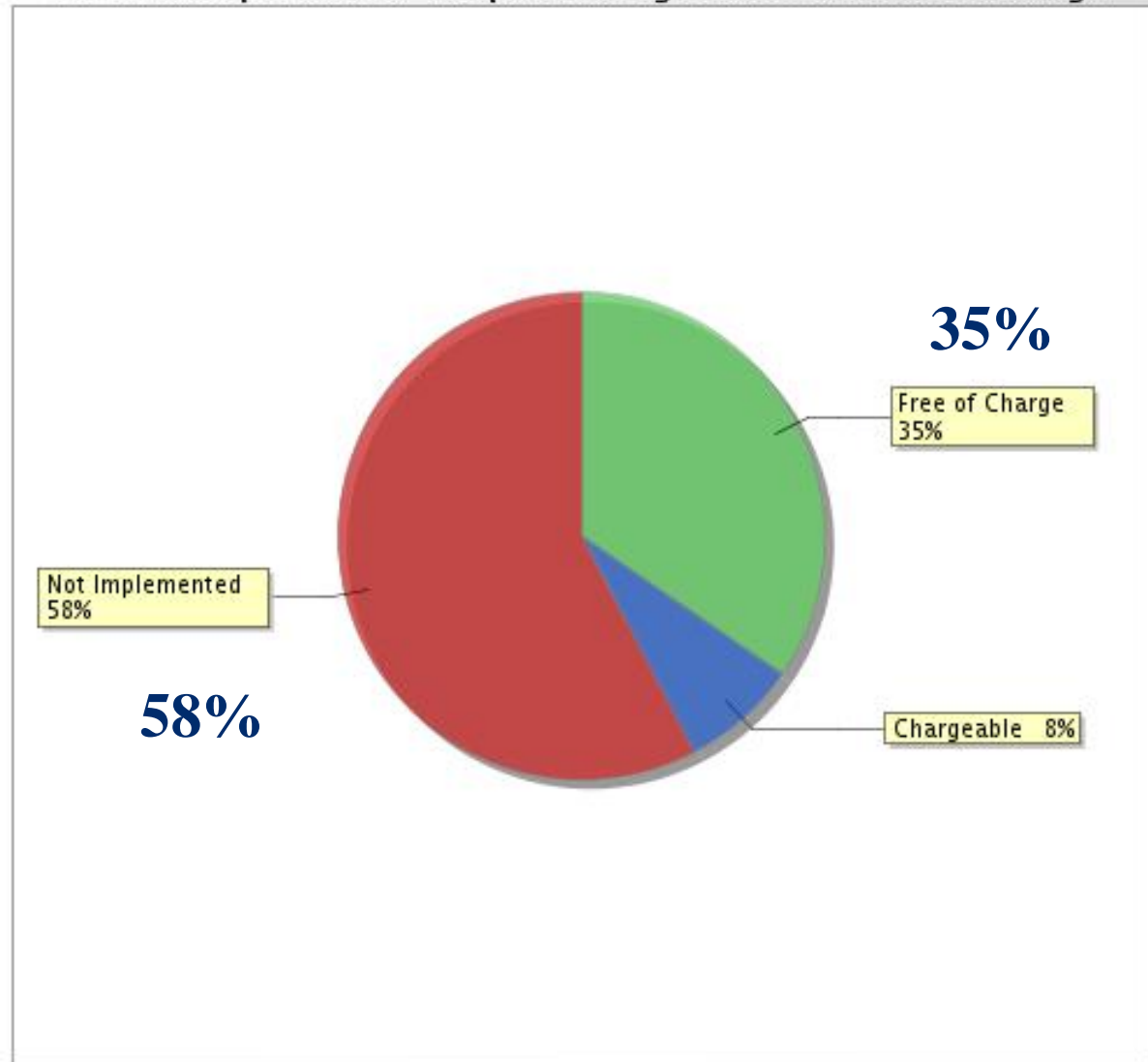


● Free of Charge = 8 ● Chargeable = 2 ● Not Implemented = 17



Which of the following services apply to your MO?

Verification process for the product registration on GS1 e-Catalogs

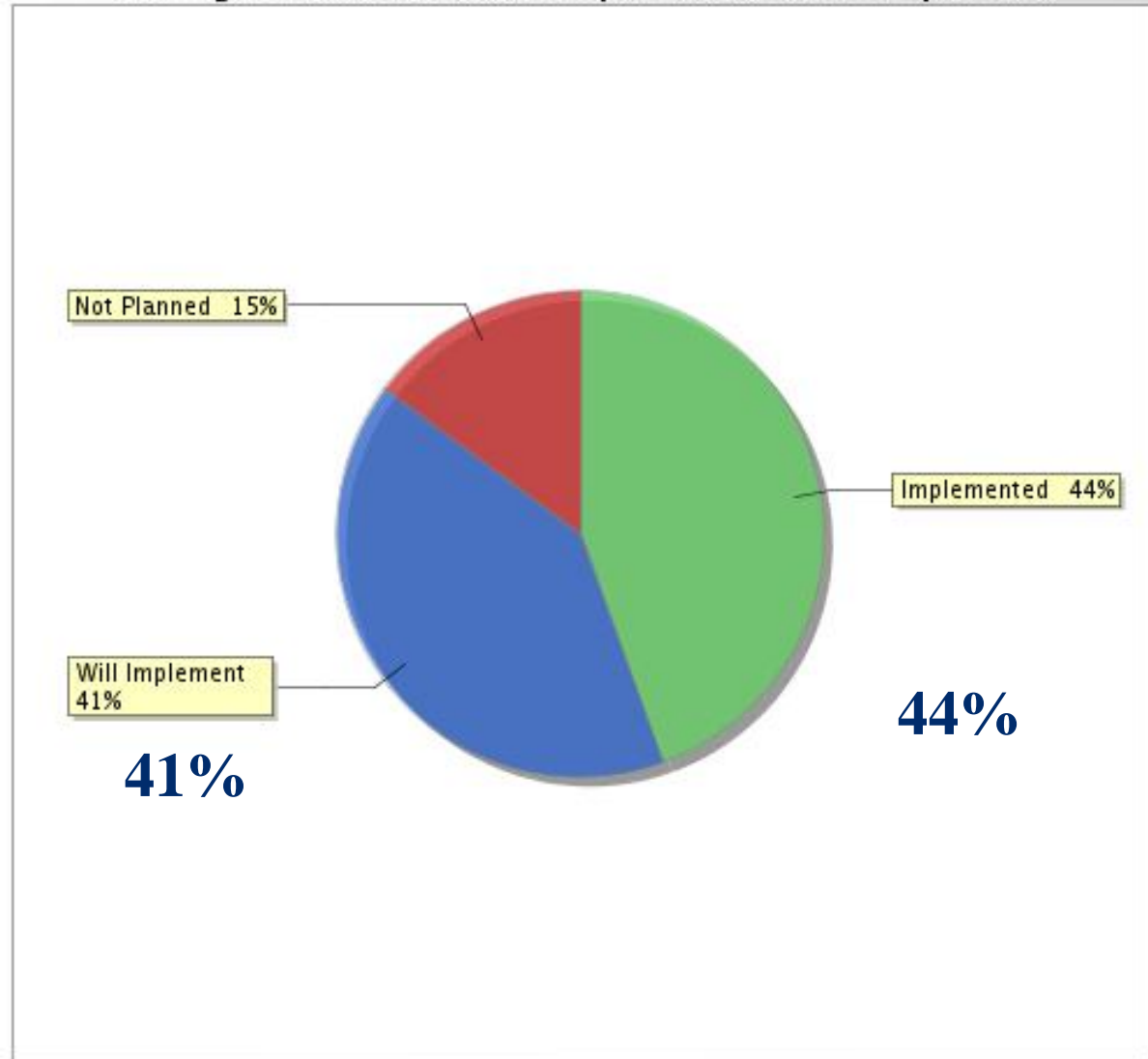


● Free of Charge = 9 ● Chargeable = 2 ● Not Implemented = 15



When does your MO intend to implement the certification programs below?

Training on GS1 standards - Implemented or Will Implement

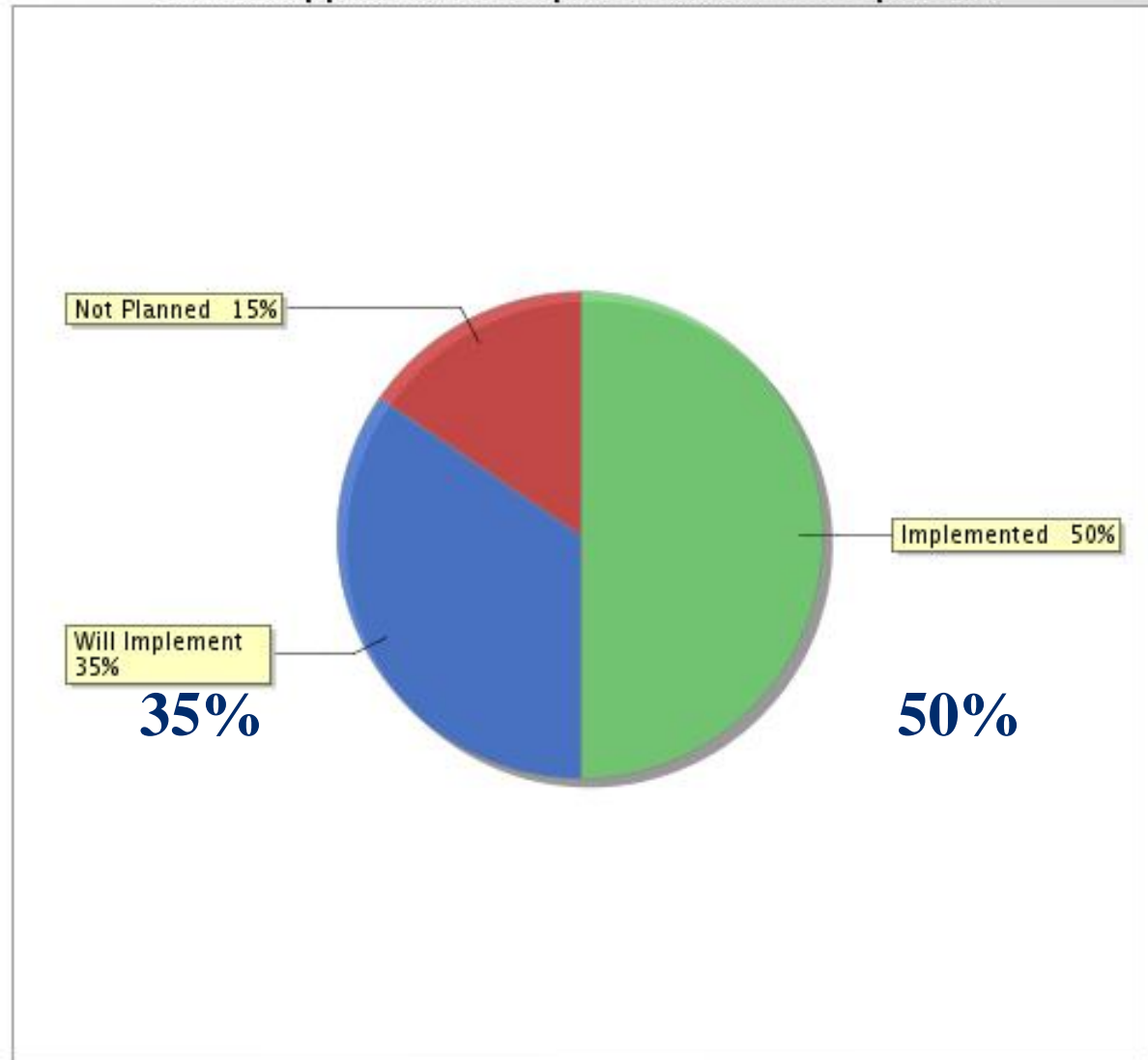


● Implemented = 12 ● Will Implement = 11 ● Not Planned = 4



When does your MO intend to implement the certification programs below?

Barcode applications - Implemented or Will Implement

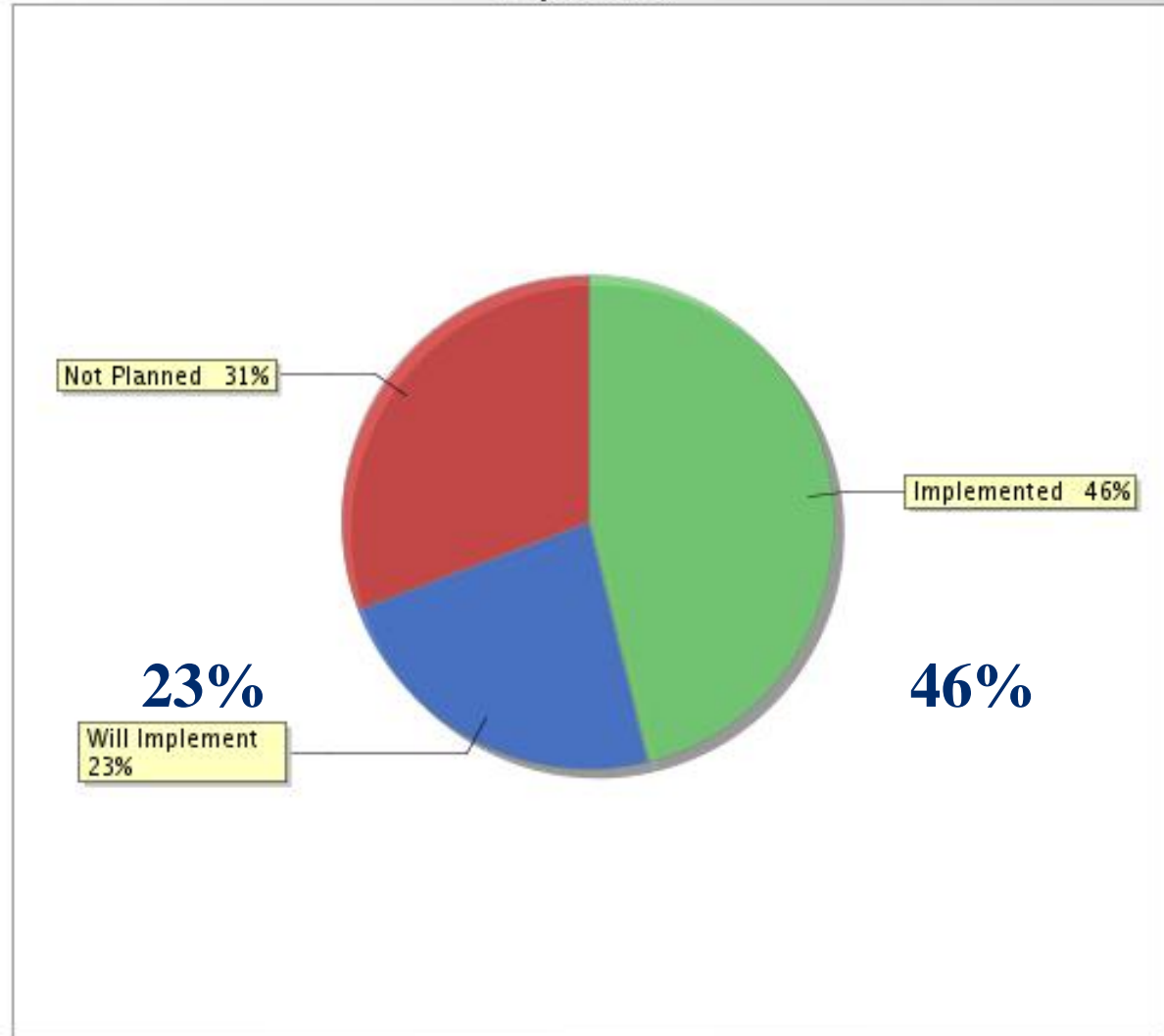


● Implemented = 13 ● Will Implement = 9 ● Not Planned = 4



When does your MO intend to implement the certification programs below?

Allocation of GS1 identification numbers - Implemented or Will Implement

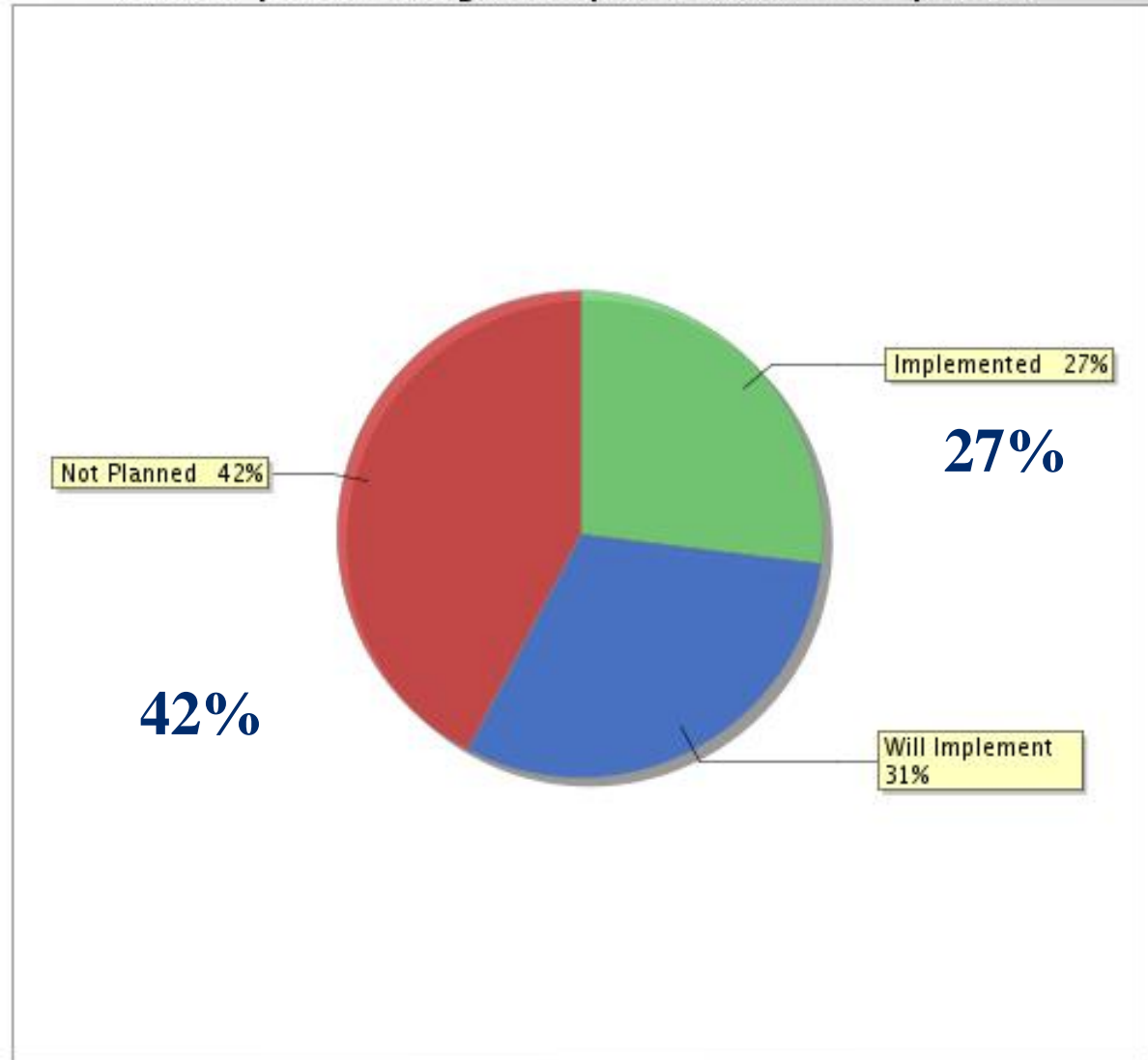


● Implemented = 12 ● Will Implement = 6 ● Not Planned = 8



When does your MO intend to implement the certification programs below?

EANCOM / XML messages - Implemented or Will Implement

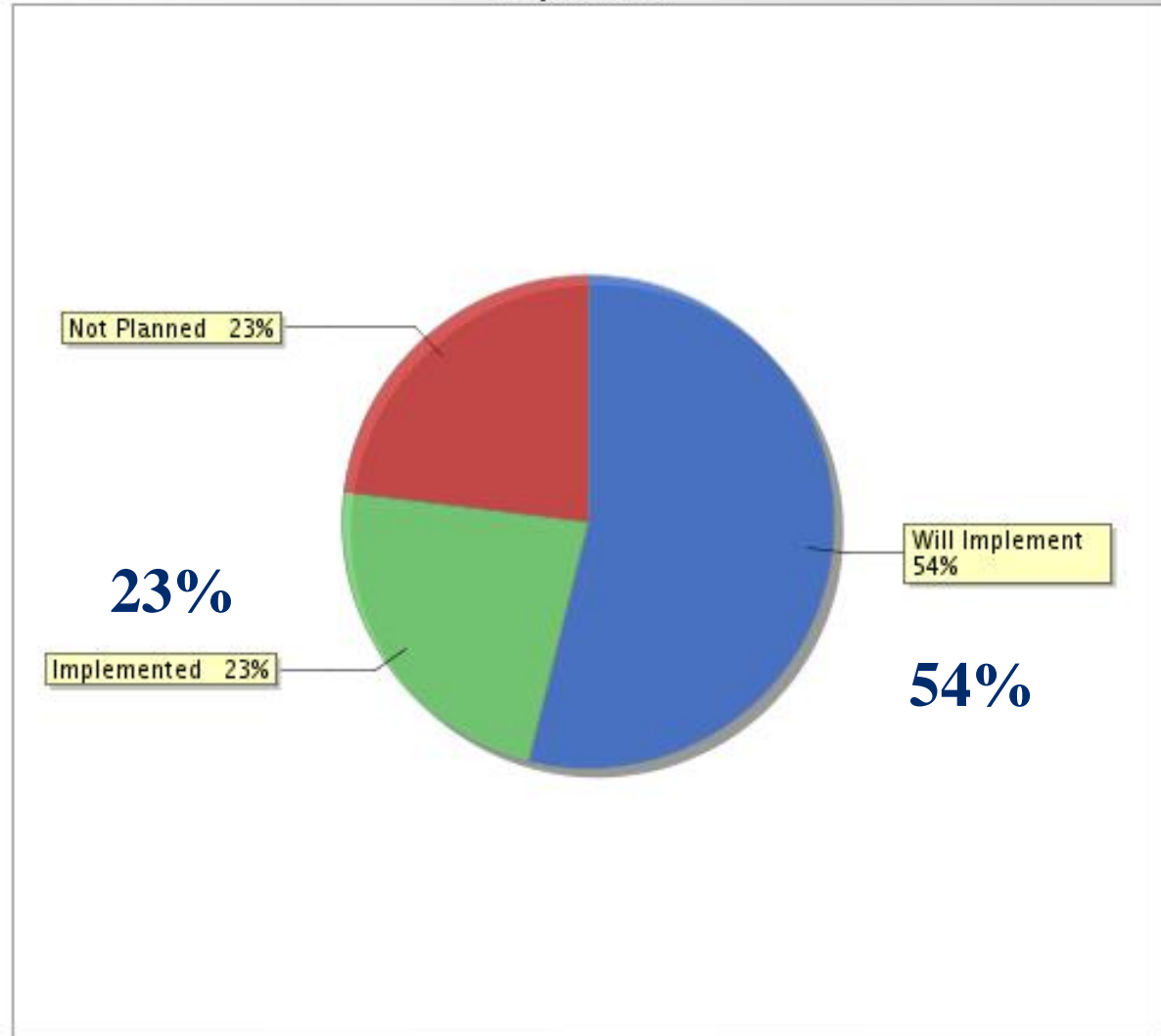


● Implemented = 7 ● Will Implement = 8 ● Not Planned = 11



When does your MO intend to implement the certification programs below?

Product registration on GS1 e-Catalogs - Implemented or Will Implement

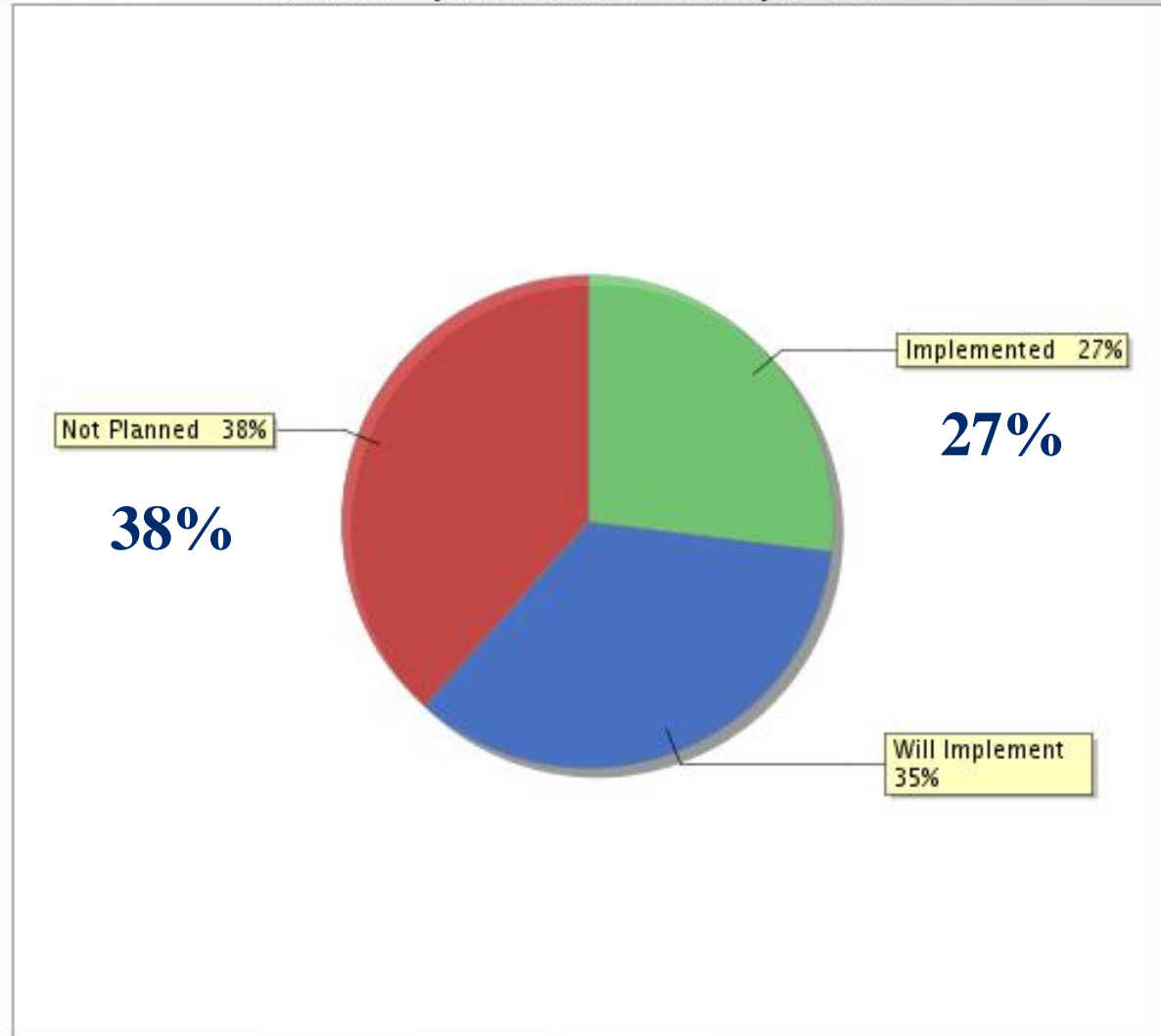


● Will Implement = 14 ● Implemented = 6 ● Not Planned = 6



When does your MO intend to implement the certification programs below?

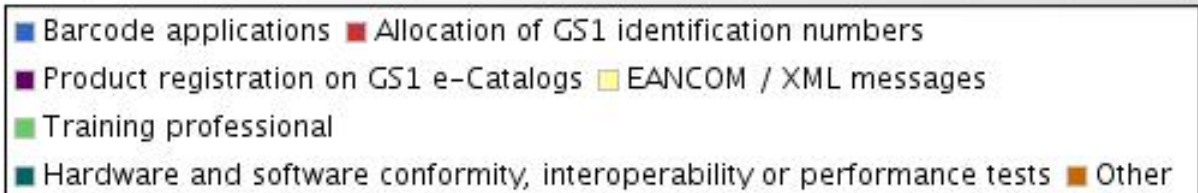
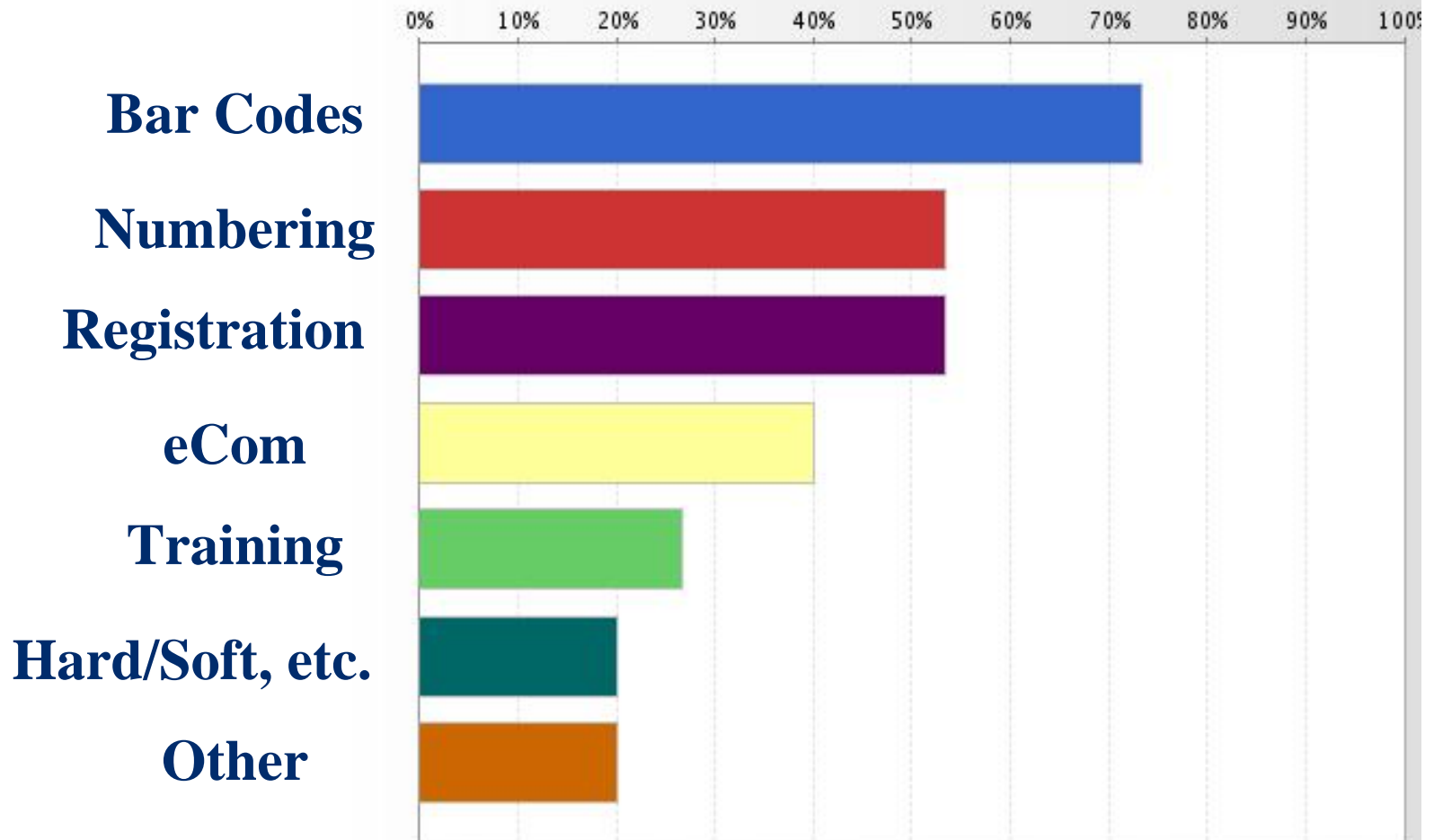
Hardware and software conformity, interoperability or performance tests – Implemented or Will Implement



● Implemented = 7 ● Will Implement = 9 ● Not Planned = 10



Which of the following certification program your MO have user's mandates? (e.g. from retailers)





OUR CONCLUSIONS

- Users increasingly require assurance that products and services they purchase conform to GS1 standards.
- A number of GS1 MOs have already created and implemented various forms of conformance and certification programmes.
- **International equivalency and mutual recognition is not well established. Topic had been raised within GSMP TST.**
- **GSMP Re-structuring: Conformance & Certification Initiative proposed.**
- A Global Framework could ensure continued confidence in GS1 Standards and increase their value to all parties involved.



CURRENTLY THOUGHT TO BE OUT OF SCOPE

- **Performance Testing**

Assess the performance of the products in different combination of environmental and usage conditions

- **Interoperability Testing**

Assess if different products can operate with each other

- **Certification of Persons**

Not a GS1 Standard. Should be done in a GS1 Professional Certification initiative.

- **GDSN Inc.**

- **EPCglobal Inc.**

- **Management Systems**

e.g. ISO 9001

- **Logistics (supply chain) processes between two trade partners**

- **Score cards**



SOME BASIC CONCEPTS

- **Conformance Clause** is a section of a standard and technical specification that states all the control points and criteria that must be satisfied to claim conformance.
- **Conformance Assessment** is a process to apply a **Test Suite** to an implementation to verify that the requirements set out in the *conformance clause* are met.
- **Validation** is the process of validating *conformance assessment*. The validation process consists of the steps necessary to perform the conformance assessment by using an official *test suite* in a prescribed manner.
- **Certification** is the acknowledgement that a *validation* has been completed and the criteria established by the **Certification Authority** for issuing a certificate, have been met.



WHICH LEVEL OF CONFORMANCE ASSESSMENT?

- **To be determined for each individual GS1 Standard.** The more complex the system, the higher the cost to perform the required conformity assessment and certification.
- **First-party (self) assessment.** Supplier's declaration of conformity. Large companies with internal competences and a wide range of products may be *accredited* by GS1 as capable of carrying out first-party assessments.
- **Second-party assessment.** Conformity assessment is carried out by a customer of the supplier organisation.
- **Third-party assessment.** Conformity assessment is performed by a body that is independent of both supplier and customer organisations.



WHERE TO START?

- **GS1 Bar Codes**

- Bar code symbols
- Data content
- Symbol placement
- Package measurements
- Bar code equipment

- **GS1 eCom**

- Message content
- Syntax
- Message exchange
- Communication protocol

- **GS1 Solutions**

- Testing a GS1 Solution means taking into account the combined use of multiple GS1 Standards as well as the application of related Business Rules.

- **Business Applications**

- Test that the back-end applications are correctly implementing the information retrieved from or extracted to GS1 Standards.



POSSIBLE BUILDING BLOCKS?

- GSMP to create and maintain **Conformance Clauses** for GS1 Standards.
- GSMP to create and maintain **Test Suites** for GS1 Standards.
- GSMP to create and maintain **Validation Processes** for GS1 Standards.
- GS1 to establish a **Certification Authority** for GS1 Standards.
- Create and maintain an **Accreditation Process** for **Conformance Assessment** and **Conformance Assessment Bodies (CAB)**.
- Establish “**GS1 Accredited**” and “**GS1 Certified**” Marks.
- Establish a **Register** of Accredited Organisations, CABs and valid Certificate Holders.



A WAY FORWARD?

- Support for a Global Framework to be established first.
- Priority level to be established within GS1/GSMP work plan and budget in view of resource allocation.
- Business case made for GS1 MOs and value proposition to Users.
- Proof of concept: conformance clauses, test suites and validation processes to be reviewed, designed and tested for one or two specific standards within:
 - GS1 Bar Codes
 - GS1 eCom
- BCS to review outcome and recommend next steps.



THANK YOU AND NOW OVER TO YOU!

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