41 — IT and Digital

41.01 — IT Services
- 41.01.01S — IT Consultancy
- 41.01.02S — IT Governance Services
- 41.01.03S — IT Help-Desk
- 41.01.04S — Management of IT Data Centres
- 41.01.05S — Information Management Systems (IMS)
- 41.01.06S — Cyber Security Services
- 41.01.07S — Managed Print Services (MPS)
- 41.01.08S — IT Professional Services

41.02 — IT Hardware
- 41.02.01G — IT Servers
- 41.02.02G — Laptops, Desktops and Accessories
- 41.02.03G — IT Equipment
- 41.02.04G — Video Conferencing Systems
- 41.02.05S — Leasing of IT Hardware

41.03 — IT Software
- 41.03.01S — CAD-CAE Software
- 41.03.02S — Engineering Software
- 41.03.03S — ERP Software
- 41.03.04S — Application Maintenance
- 41.03.05S — Client Relationship Management (CRM) Software

Development
- 41.03.06S — Software Back-End
- 41.03.07S — Software Front-End
- 41.03.08S — Full Stack
- 41.03.09S — Mobile App

41.04 — Cloud Solutions
- 41.04.01S — Software as a Service (SaaS)
- 41.04.02S — Platform as a Service (PaaS)
- 41.04.03S — Cloud Integration
- 41.04.04S — Cloud Orchestration

41.05 — Telephone Equipment and Systems

Traditional
- 41.05.01G — Traditional Telephone (Landline, Mobile, …)
- 41.05.02G — Telephone Central (PBX and Voice mail)

- 41.05.03G — VOIP
- 41.05.04G — Desktop Telephone Equipment
- 41.05.05G — Weather-Proof and EX Classified Areas
- 41.05.06G — Satellite Phones

41.06 — Digital Innovation

Digital Services
- 41.06.01S — Artificial Intelligence
- 41.06.02S — Workflow Automation
- 41.06.03S — Augmented Reality
- 41.05.04S — Virtual Reality
- 41.05.05S — Machine Learning
- 41.05.06S — Robotic Process Automation
- 41.05.07S — Blockchains

Industrial Internet of Things (IOT)
- 41.06.08S — Big Data Analytics
- 41.06.09S — Remote Surveillance and Monitoring
- 41.06.10S — RFID SmartTag

Home Energy Management Systems
- 41.05.11S — Leak Detection
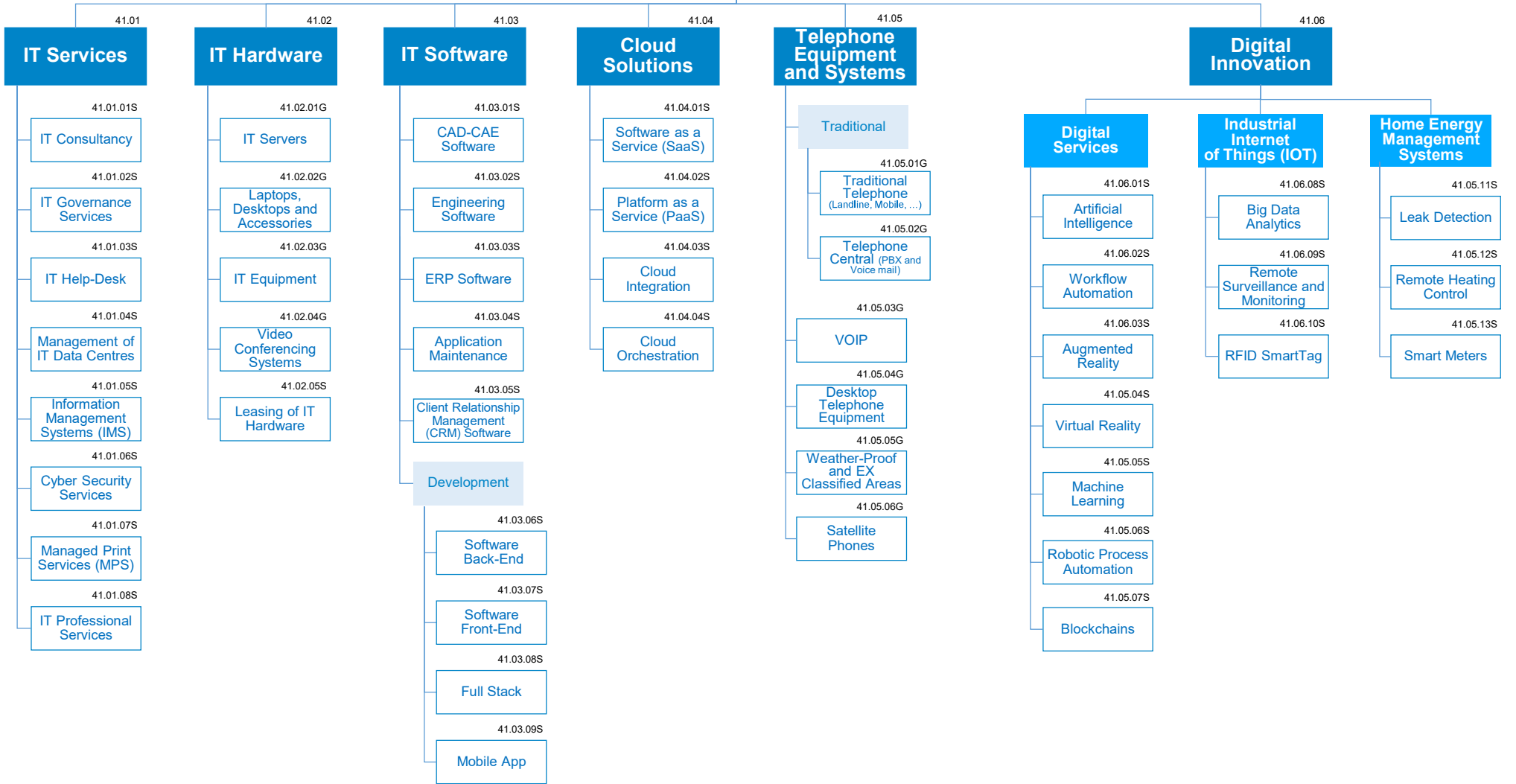- 41.05.12S — Remote Heating Control
- 41.05.13S — Smart Meters

SUPPL HI

IT and Digital

This Group of Categories encompasses all the IT and Digital products and services that are deployed by businesses.

"IT Hardware" and "Telephone Systems" refer to physical assets owned by companies, while other categories include IT and Digital Services which can be offered in-house, outsourced or provided as a combination of the two. These categories include items that can be applied across other category groups (i.e. back-end development of a specific software for offshore activities).

MAIN RATIONALES BEHIND THE STANDARD CATEGORIZATION

IT Services

- This Family includes all services related to the management, optimization, and protection of IT systems and resources
- The "IT Governance Development" category includes the establishment of chains of responsibility, authority and communication regarding IT and the definition of policies, standards, and controlling mechanisms to guide and facilitate operations
- "IT Data Centre" refer to service of operations and management of facilities used to house computer systems and associated components, such as telecommunications and storage systems
- "Information Management System" is a software designed to facilitate the storage, organization and retrieval of information
- "Cyber Security" encompasses technologies, processes and practices designed to protect IT Systems from attack, damage or unauthorized access. It includes: application security, information security, network security, disaster recovery / business continuity planning, operational security, end-user education
- "Managed Print Services" (MPS) includes management and optimization a company's document output, hardware rental and maintenance, and the service and consumables needed to operate the existing system
- Specialized IT services cover all the other services that require focused knowledge and experience (e.g. Data Centre Design, …)

IT Hardware

- The term "IT Hardware" encompasses all physical components of computers, telecommunications, and other devices
- The first four categories include hardware directly owned by the company and not under a rental / leasing contract
- "IT Equipment" includes all items not necessarily associated to laptops and desktops. These include Projectors, Screens, etc. but exclude telephone hardware, which belongs to the "Telephone Systems" family
- Printers and Faxes and related consumables are considered under the Group 45 ("General Services")

IT Software

- "IT Software" is the virtual component of IT systems which consists of encoded information or computer instructions
- The first three categories include Software that is ready to be used
- The "Application Maintenance" category consists in the activities aimed at ensuring the functioning of applications such as de-bugging, adaptation to new cases or increasing the maximum capacity
- The last four categories include all activities related to software development (both in- and out-sourced):
  - "Back-end" (BE) refers to the part of the software system elaborating data generated by the Front-End (FE)
  - "Front-End" (FE) refers to the part of the software system, which is accessible to users or other external systems that produce input data
  - "Full Stack" refer to developers that can work cross-functionally on the full "stack" of technology, i.e. both the front end and back end. Full stack developers offer the full package
  - "Mobile App Development" encompasses all the development activities related to Mobile Apps (thus including also BE and FE)

Cloud Solutions

- This category contains all the categories related to the delivery of hosted services over the internet (i.e. use an application or virtual machine without having to build and maintain computing infrastructures in-house)

Notes:

- Cloud computing has recently grown in importance as it provides advantages in terms of reliability and manageability. However it poses some control and security issues. For instance, it is crucial to know the physical location of the hosting servers as this influences the jurisdiction under which data is protected
- "Cloud Integration" allows multiple application programs to communicate and share data in the cloud
- "Cloud Orchestration" refers to the ability to build cloud infrastructures capable to handle entire processes as opposed to single tasks

Telephone Systems

- This family includes all physical Telephone Systems
- "VoIP" refers to physical Telephone Systems capable of transmitting voice and/or multimedia content over the internet
- "Weather-Proof and EX Classified Areas" Telephone Systems are specifically included under this category and not generically under the "Safety Systems, Equipment and Clothing" Group of Categories

Digital Innovation

- This family groups the main digital innovation trails that have an impact on businesses
  - "Digital Services"
    - "Artificial Intelligence": Software routines capable to simulate certain human reasoning paths
    - "Workflow automation": allows to have the right information in the right place at the right time
    - "Augmented Reality" (AR): Unlike virtual reality, which creates a totally artificial environment, AR uses the existing environment and overlays new information on top of it
    - "Virtual Reality" (VR): software-created artificial environment presented to the user in such a way that it appears as if it was real
    - "Machine Learning": Software routines capable to build rules out of experience and adapt to new situations
    - "Robotic Process Automation": the ability to interface Information systems simulating the human interaction instead of building APIs
  - "Industrial Internet of Things" (IOT)
    - "Big Data Analytics": extracting useful information from very large data sets. The complexity of such processes usually calls for specific tools and know-how
    - "Remote Surveillance and Monitoring": monitoring and security system operated from a location other than that controlled
    - "Radio Frequency Identification (RFID) SmartTag": electronic tag attached to an object to track and store data relating to its use
  - "Home Energy Management Systems" includes the system of tools allowing for a better monitoring and control of energy consumption