

OUTPUT 3. Recommendations for the introduction and operationalization of the digital competencies in the Romanian public administration

Technical Support Instrument

Supporting reforms in 27 Member States

TSI component “Romania: Developing a General Digital Competence Framework for Civil Servants”

Disclaimer

This document was produced with the financial assistance of the European Union. Its content is the sole responsibility of the authors. The views expressed herein can in no way be taken to reflect the official opinion of the European Union.

This project is carried out with funding by the European Union via the Technical Support Instrument (TSI) managed by the European Commission's Reform and Investments Task Force (SG REFORM) and implemented by the World Bank with the support and the partnership of SG REFORM.

This work is a product of the staff of The World Bank. The findings, interpretation and conclusions expressed in this paper do not necessarily reflect the views of the Executive Directors of the World Bank, the European Commission or the Government. The World Bank does not guarantee the accuracy of the data included in this work.

Copyright Statement

© 2025 The World Bank

1818 H Street NW, Washington DC 20433

Telephone: 202-473-1000; Internet: www.worldbank.org

Some rights reserved

The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Rights and Permissions

The material in this work is subject to copyright. Because The World Bank encourages dissemination of its knowledge, this work may be reproduced, in whole or in part, for non-commercial purposes as long as full attribution to this work is given.

All queries on rights and licenses, including subsidiary rights, should be addressed to World Bank Publications, The World Bank Group, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2625; e-mail: pubrights@worldbank.org.

ACKNOWLEDGEMENTS

The report was prepared under the Technical Support Instrument (TSI) component *“Romania: Developing a General Digital Competence Framework for Civil Servants”*, led by Anca Butnaru (Senior Public Sector Expert), Dimitrie Miheș (Senior Public Sector Specialist) and Fanny Weiner (Senior Public Sector Specialist).

The development of this report was led by Anca Butnaru, with a core team composed of Cristina Zamfir (Senior Public Sector Expert), Ciprian Ciobanu (Senior Legal Expert), Ramona Moldovan (Senior Public Sector Expert), Marius Merlusca (Senior Human Resource Management Expert) and Cezar Haj (Public Sector Expert).

The report also benefited from substantial input from: Diana Iancu (Dean, Faculty of Public Administration, SNSPA), Cătălin Vrabie (Professor, SNSPA) and Magdalena Popescu (HRM Expert and Senior Communications Expert).

Fanny Weiner (Senior Public Sector Specialist) provided valuable insights as peer reviewer.

The team would like to thank Fabian Seiderer (Practice Manager, Governance Global Practice, Europe and Central Asia), Yasser El-Gammal (Country Manager for Romania), and the Romania Portfolio Team for their overall advice, guidance, and support throughout the development of this report.

The team would like to express its gratitude to the counterparts in SG REFORM, in particular to Johannes Boermann (Head of Sector), in the National Agency for Civil Servants, in particular to Lavinia Niculescu (Director) and Cristina Panțiru (Public manager), in the National Institute for Administration, in particular to Ioana Melenciuc-Ioan (President), Alina Blei (Director) and Alina Sandu (Head of Service) and in the Authority for the Digitalization of Romania, in particular to Alina Paraiala (Head of Service), Cristina Catai (e-Government Expert) and Sabin Dragoman (e-Government Expert) for their constructive collaboration, as well as to other government agencies and private sector entities who actively participated in consultations and interviews.

This report has been delivered in December 2025, under the EC Contract No. REFORM/IM2024/005 (under TF074110). It has been delivered as part of the project *“Romania: Developing a General Digital Competence Framework for Civil Servants”* (Donor code 24RO12).

Contents

Executive summary	7
1. Introduction and scope	15
1.1 Context and rationale	15
1.2 Methodological approach for the development of this output	18
2. Informing the adaptation of the normative framework for digital competencies.....	19
2.1 Anchoring digital competencies in the legal competency-based HRM system.....	19
2.2 Normative approach to ensuring clear and flexible use of complexity levels.....	27
2.3 Legal targeting of the use of digital competencies in two HR processes: recruitment and training	29
3. Updating the methodological framework for using digital competencies in HR processes	32
3.1 Integrating digital competencies into job analysis - ensuring evidence for higher digital proficiency requirements and/or additional specific digital competencies.....	34
3.2 Integrating digital competencies into recruitment.....	43
3.3 Performance management.....	47
3.4 Promotion and mobility.....	49
3.5 Training and certification of digital competencies	50
4. Towards a revamped certification/ validation/ recognition system for digital competencies.....	52
4.1 Overview of the current context and recognition/certification pathways for digital competencies	53
4.2 Recommendations for an evidence-based certification and recognition mechanism for digital competencies.....	61
5. Conclusions and a possible implementation roadmap	69
Annex 1 Correlation between the proposed general digital competency framework and ICDL modules	73
Annex 2 Perspectives for the application of general digital competencies in recruitment in Phase 2 of implementation.....	78
Annex 3 Summary of key legal provisions to be updated for introducing the general digital competency framework	80

List of figures

Figure 1 Project intervention logic (as reflected by the project deliverables)	8
Figure 2 The proposed General Digital Competency Framework (output 2)	8
Figure 3 TSI project intervention logic: Report corresponds to Activity 3.....	16
Figure 4 Integration of general digital competencies into recruitment and training in the first phase of implementation of the general digital competencies	33
Figure 5 Simplified job analysis to determine adequate digital competency proficiency levels for civil service jobs in institutions (step 1)	39
Figure 6 Simplified job analysis to determine if any of the specific digital competencies identified prior to the adoption of the digital competency framework are maintained (step 2)	43
Figure 7 Examples of ICDL modules mapped to DigComp areas	55

List of tables

Table 1 The draft general digital competency framework for the Romanian civil service.....	20
Table 2 Differences between the general competency framework and the general digital competency framework.....	23
Table 3 Key differences between general and specific digital competencies	39
Table 4 Proposed set of general digital competencies that could be tested in recruitment as part of the national competition	45
Table 5 Distribution of 27 certification schemes across the 27 EU Member States (N=27 schemes), including Romania.....	54
Table 6 Romanian digital skills certification frameworks and recognition pathways	59
Table 7 Infrastructure and expertise in higher education institutions	67
Table 8 Indicative roadmap for the implementation of the digital competency framework in HR processes.....	70
Table 9 Possible correlation table between ICDL modules and the proposed general digital competency framework.....	75
Table 10 Sample assessment tasks for digital competency thresholds.....	78
Table 11 Overview of the key legal provisions to be amended/drafted to set out and regulate the general digital competency framework.....	80

Acronyms

ADR	Authority for the Digitalization of Romania
AI	Artificial Intelligence
ANC	National Qualifications Authority
ARACIS	Romanian Agency for Quality Assurance in Higher Education
BAIT	Basque Country digital competence and certification system (Spain)
CCNA	Cisco Certified Network Associate
CHARM-EU	Challenge-driven, Accessible, Research-based, Mobile European University
CPD	Continuing Professional Development
DLA	Digital Lithuania Academy
DigComp	European Digital Competence Framework for Citizens

DigComp 2.2	European Digital Competence Framework, version 2.2
DigComp 3.0	European Digital Competence Framework, most recent update (November 2025)
DigComp-CERT	DigComp-based Certification Scheme
DigComp-PA	Digital Competency Framework for the Public Administration
DigCompRO	Romanian National Digital Competence Framework for Citizens
ECDL	European Computer Driving Licence
EDSC	European Digital Skills Certificate
EQF	European Qualifications Framework
EU	European Union
EU-CONEXUS	European University for Smart Urban Coastal Sustainability
EUniWell	European University for Well-Being Alliance
GEO	Government Emergency Ordinance (Ordonanță de Urgență a Guvernului – OUG)
HEI	Higher Education Institution
HR	Human Resources
HRM	Human Resources Management
HRMIS	Human Resources Management Information System
ICDL	International Computer Driving Licence (current brand of ECDL)
IDCERT	An official certification of digital skills in Italy, which fits within the framework of the activities carried out by the Italian National Coalition for Digital Skills and Jobs; it is aligned with DigComp 2.2
ICT	Information and Communication Technology
IKANOS	Basque digital competence framework and assessment system
IKANOS SAT	IKANOS Self-Assessment Tool
INA	National Institute for Administration
ISACA	Information Systems Audit and Control Association
JRC	Joint Research Centre of the European Commission
LMS	Learning Management System
MS365	Microsoft 365 productivity suite
NACS	National Agency of Civil Servants
NGO	Non-Governmental Organization
NRRP	National Recovery and Resilience Plan
PA	Public Administration
PEKIT	Permanent Education and Knowledge on Information Technology (certification scheme)
PIX	French digital competence assessment and certification platform
PNRR	Planul Național de Redresare și Reziliență (Romanian acronym for NRRP)
PPP	Public-Private Partnership
RAS	Reimbursable Advisory Services
RNCIS	National Registry for Higher Education Qualifications
SIMRU	Integrated Human Resources Management System for the Civil Service
STEM	Science, Technology, Engineering and Mathematics
TNA	Training Needs Assessment
TSI	Technical Support Instrument

Executive Summary

Romania is advancing both public sector digitalization and competency-based human resource management, but digital skills remain unevenly defined and insufficiently integrated into core HR practices in the public administration. To address this gap, the Technical Support Instrument (TSI) project *“Developing a General Digital Competency Framework for Civil Servants in Romania”* was launched and is implemented by the World Bank for the European Commission, in partnership with the National Agency of Civil Servants (NACS), the Authority for the Digitalization of Romania (ADR), and the National Institute for Administration (INA). The project supports the Government of Romania in developing and institutionalizing a dedicated digital competency framework for civil servants, aligned with national and EU digital transformation priorities.

The TSI project complements ongoing HRM reforms financed under the NRRP-supported Reimbursable Advisory Services (RAS) program to NACS, which addresses recruitment reform, workforce planning, and leadership development. Digital competencies are positioned as a critical enabler of these reforms, supporting data-driven workforce planning and targeted learning programs across the civil service.

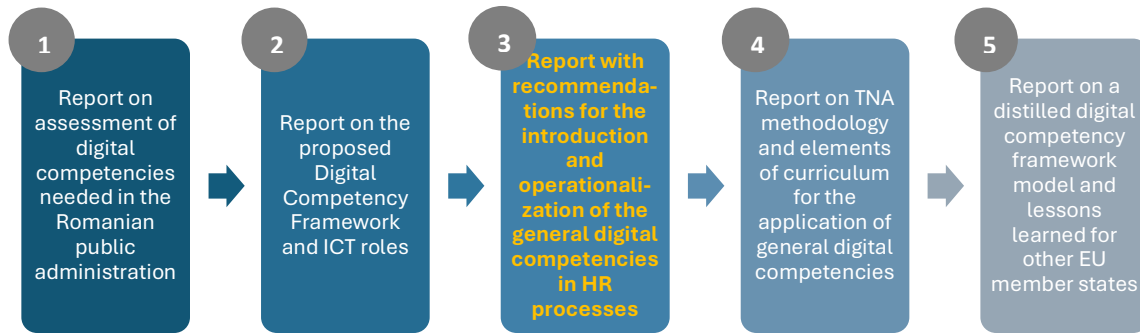
The initiative is aligned with Romania’s national digital skills agenda. It builds on DigCompRO, Romania’s adaptation of the European DigComp 2.2 framework, adopted through GEO 27/2025 as the national reference for digital competence. While DigCompRO applies to the general population, the TSI project adapts its structure and logic to the specific functional roles within public administration, ensuring consistency with EU standards while addressing the operational needs of civil service positions.

This report corresponds to Activity 3 of the TSI project. The full project includes:

- Activity 1 – Assessment of digital competency needs through policy review, job analysis, and foresight.
- Activity 2 – Design of the digital competency framework, including competency areas, proficiency levels, and pilot testing.
- Activity 3 – Integration into HRM processes, focusing on legal anchoring and operational methodologies.
- Activity 4 – Capacity building and implementation support, including training methodologies and curriculum development.
- Activity 5 – Knowledge sharing with other EU Member States.

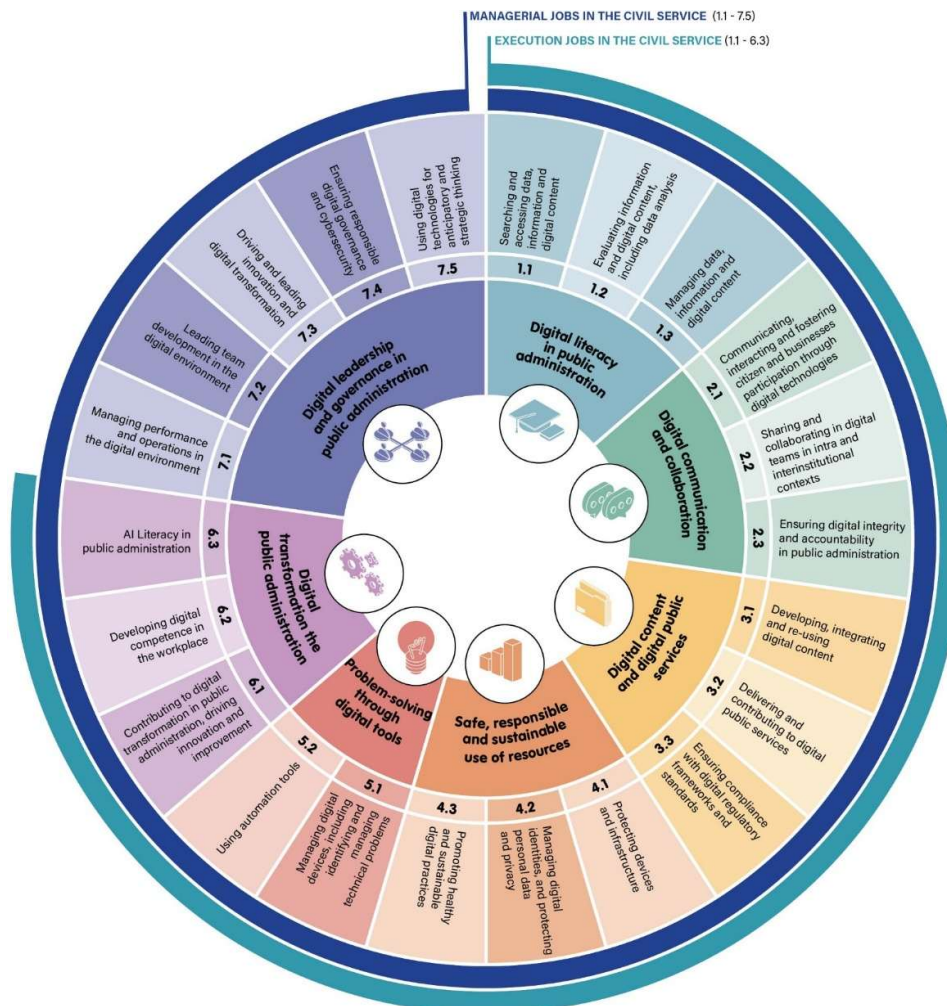
Following the design of the competency framework proposed under Output 2 of the TSI project, this report shifts focus to operationalization. It translates the conceptual model into recommendations that support regulatory adoption and practical use within HR systems. Training system recommendations are addressed separately under Output 4. The project intervention logic is reflected in the figure below. This report corresponds to Output 3.

Figure 1 Project intervention logic (as reflected by the project deliverables)



Under Output 2 the Bank proposed a general digital competency framework for public administration. The framework defines 22 digital competencies grouped into three types and seven areas: Type I - fundamental competencies (areas 1-5), Type II - digital transformation (area 6), and Type III - digital leadership (area 7). Each competency is structured across three proficiency levels: A (basic), B (intermediate), and C (advanced). The model is aligned with DigComp 2.2 and DigCompRO (adopted through GEO 27/2025), with DigCompRO serving as the national reference, while the public-administration framework is intended to be used as a distinct, sector-specific model.

Figure 2 The proposed General Digital Competency Framework (output 2)



The recommendations on the introduction and operationalization of the proposed general digital competency framework are structured around three pillars, which are reflected in Chapters 2, 3 and 4 of this report:

- The first pillar (Chapter 2) covers recommendations for legal adoption and institutional embedding of the digital competency framework within the civil service HRM system.
- The second pillar (Chapter 3) proposes a methodological framework for integrating digital competencies into HR processes, prioritizing recruitment and training as initial entry points.
- The third pillar (Chapter 4) addresses improvements to the certification, validation, and recognition system so that digital skill evidence can be credibly used for recruitment, mobility, professional development, and training decisions.

The methodological approach combined legislative mapping, HR process analysis, desk research, and stakeholder consultation, including iterative work with the HR Working Group established under the TSI project, bringing together 30 HR practitioners from central government. Recommendations were calibrated against operational realities and Romania's existing HR system maturity.

Recommendations on the introduction of general digital competencies into the existing legal framework

The general digital competency framework is recommended to be defined legally as a separate category of “general digital competencies” within the competency architecture of the Administrative Code (GEO 57/2019). This distinction avoids confusion with both the existing general competency framework defined under Annex 8, Article 17 and with institution-specific competencies. The law already allows for the existence of multiple general competency frameworks, making a separate regulatory placement legally feasible and preferable.

Minimum proficiency levels for digital competencies should be established directly in legislation for each category of civil service position. Institutions may require higher levels than the national minimum, but only where these are justified through formal job analysis, documented against job responsibilities, and subject to procedural endorsement by NACS. NACS' role should consist in verification of compliance and justification, not reassessment of technical need. This check also applies to ensure institutions do not artificially duplicate or rename competencies already covered by the national digital framework.

Digital competencies are proposed to be used only in two HR processes in the initial phase: recruitment and professional training. Their use must be explicitly excluded by law from performance appraisal, promotion, mobility, or disciplinary processes until assessment platforms, certification mechanisms, and training infrastructure are operational. A provision establishing phased implementation and formal readiness assessment is recommended to prevent premature and inconsistent application.

In the legal provisions on recruitment, digital competencies should replace the outdated legal requirement for “theoretical IT knowledge at beginner level.” Only selected competencies from areas 1-5 should be tested, and only at the basic (A) proficiency level, regardless of the job's legally assigned proficiency level. Testing will take place during the preliminary testing phase of the national competition, not in assessment centers used for general competency testing. Multiple amendments to Annex 8 and Annex 10 of GEO 57/2019 are proposed to reflect this reallocation of testing responsibilities and to clarify the scope of assessment bodies.

Legislation should also mention that in training and professional development, the full spectrum of general digital competencies and proficiency levels will be used to guide training needs assessment and learning pathways. This enables targeted upskilling rather than generic training provision. Training

needs related to digital skills must be derived from a dedicated digital competency assessment process, ideally supported by a digital TNA platform, not from annual performance appraisals.

The legal framework should also explicitly exclude general digital competencies from the annual performance appraisal regulated under Article 485¹ of the Administrative Code. Performance appraisal is intended as a managerial accountability tool, not a skills assessment instrument. Including digital competencies would incentivize compliance scoring rather than developmental learning and undermine the purpose of the framework as a capability-building mechanism. Legislative amendments should clarify that digital competencies are assessed separately and feed into training planning, not performance ratings.

The Administrative Code should define the core elements of the framework, including:

- the formal definition of “general digital competencies”;
- the list of competencies grouped by type and area;
- the mapping of competencies to categories of civil service positions with minimum proficiency levels;
- the three-level proficiency classification (A/B/C);
- institutional responsibility for setting higher job-specific levels through job analysis;
- standardized assessment rules and potential use of a five-level evidence rating scale for recruitment testing; and
- the legal basis for phased implementation safeguards.

Detailed competency descriptors for each proficiency level should be adopted through secondary or tertiary legislation (government decisions or NACS presidential orders), rather than the Administrative Code itself. This approach ensures regulatory flexibility so descriptors can be updated in response to rapid technological change without requiring repeated amendments to primary legislation.

Finally, the legal framework should clarify that ICT specialist roles fall outside the scope of the general digital competency framework. These are covered under a dedicated role framework developed separately under Output 2. However, non-technical functions located structurally within ICT units remain subject to the general framework and may legitimately require higher proficiency levels where justified through the job-analysis process and endorsed by NACS.

Recommendations on the operationalization of general digital competencies in HR processes

The proposed general digital competency framework is expected to be gradually to ensure that digital competencies are developed meaningfully across the civil service and do not become a purely compliance-driven, “tick-the-box” exercise. The objective is to embed digital competencies into the current HR architecture without creating parallel systems. The methodological approach reinforces ongoing HRM reforms and limits immediate application to the two lowest-risk, highest-impact processes: job analysis, recruitment, and training.

Job analysis is recommended to become a key mechanism for simplifying and standardizing the use of digital competencies across the civil service. Current job descriptions frequently list only generic or inconsistent digital requirements, often misclassified as “specific competencies” or reflecting incumbents’ personal skills rather than real job needs. The framework proposes systematic correction of this practice by reclassifying specific digital requirements under the general digital competencies while preserving specific digital skills only for genuinely specialized roles. This ensures consistency, removes inflated or incorrect digital demands, and improves fairness in recruitment and mobility.

In that sense, job analysis is also expected to be the primary evidence-based process for calibrating digital proficiency requirements beyond the legal minimums. Institutions are advised to apply the

statutory baseline proficiency levels as default and depart from them only where job functions justify higher proficiency. The job-analysis working group formed in each institution under OPANFP 332/2024 should be expanded to include digital expertise from institutional IT units, without altering existing legal procedures. The group should identify digitally intensive tasks using a standardized checklist and review specific posts flagged as potentially requiring higher proficiency levels or distinct specific competencies.

When higher proficiency thresholds are identified, they need to be mapped to the appropriate general digital competency (A/B/C levels) rather than inflated into new job-specific competencies. Specific digital competencies should be defined only in limited, justified cases where higher proficiency levels alone cannot capture the required skills, such as statistical modelling, specialized data analytics, or other occupation-specific digital techniques. ICT specialist roles should remain outside the general digital framework and be regulated as a standalone separate ICT role classification model, as proposed under Output 2.

All job-analysis outcomes affecting digital competencies should continue to be submitted to NACS for procedural endorsement, ensuring legal compliance, consistency across institutions, and prevention of competency inflation or duplication. Approved profiles are then reflected in standardized job descriptions, listing both general digital competencies with assigned proficiency levels and clearly justified specific digital competencies where applicable.

Recruitment integration should follow a staged approach. During Phase 1 (years 1-3), the national competition should test only the minimum proficiency level (A) and only a limited subset of competencies from Areas 1-5 of the framework. Eight competencies are proposed for testing, corresponding to information literacy, digital communication, content creation, digital safety, and basic digital problem-solving. Competencies from Areas 6 and 7 (digital transformation and leadership) are excluded entirely from recruitment testing at this stage. This builds on existing IT knowledge testing practices and avoids disproportionate burdens on candidates and NACS. Higher-level digital requirements are not tested at the national competition stage in Phase 1. They are addressed through onboarding and targeted training programs rather than entry assessments. Distinct specific digital competencies, where justified, are evaluated only in Phase 2 of recruitment, through institution-level job-based selection methods using practical tests, exercises, or certificates.

In Phase 2, after the establishment of a national digital assessment platform, validated testing instruments, and a functioning certification system, recruitment testing may expand to cover the full framework with differentiated profiles by job category. Specific competencies remain assessed at the institutional selection stage through tailored tools.

The general digital competencies should be excluded from application in performance management in Phase 1. Digital competencies are not to be rated in annual appraisals due to the absence of validated assessment tools, structured training support, and managerial capacity. Current appraisal systems are also distorted by rating inflation and high-stakes consequences, making them incompatible with meaningful competency assessment at this stage.

In Phase 2, digital competencies may be incorporated into performance management only as diagnostic development inputs, not as numerical ratings. Appraisals could continue to rate general civil service competencies exclusively. A new “Digital Development Plan” block may be added to appraisal forms to record learning needs and training actions without scoring. At least one digital learning objective should appear in each performance agreement, phrased in operational terms tied to service outcomes. Aggregated results support institution-level training planning.

Promotion and mobility are also expected to remain unchanged during Phase 1. Digital competencies become relevant to career advancement only following a formal readiness review, expected approximately three years after implementation begins. Preconditions include the existence of validated recruitment tests, operational training infrastructure, certified assessment tools, and a

functional recognition system supported by HRMIS. Once confirmed, eligibility for promotion or transfer requires formal evidence of achieving the digital proficiency required for the target role.

Training and certification assume a central role in operationalization. Learning systems lead implementation while assessment tools mature. As recommended under Output 4, INA should develop modular training programs on digital competencies, combining micro-learning, e-learning, and classroom courses. NACS, INA, and ADR are encouraged to establish a Digital Academy, including a Digital Leadership Academy for managers, focusing on AI governance, service design, data-driven policy, and digital transformation management. Beyond formal training, the framework encourages peer learning communities, cross-institutional workshops, and knowledge-sharing networks to embed digital competencies into daily administrative practice and sustain skills development system-wide.

Recommendations on improving the system for validation/ certification/ recognition of digital competencies

Recognition, validation and certification of digital competencies are presented as a core enabler for operationalizing the general digital competency framework in Romania's public administration. The current system is marked by fragmentation: heavy reliance on ECDL/ICDL, procedural hurdles in recognizing alternatives (including university modules), temporary NRRP-funded initiatives, and a general tendency to treat digital training as a compliance exercise rather than capability building. A dedicated digital skills / TNA platform, as proposed under Output 4, is meant to ensure the right tool for diagnosing skill gaps outside the annual appraisal cycle and target learning based on evidence instead of "check-the-box" participation.

The current landscape of digital-skills education/training routes for civil servants covers multiple pathways. A mapping of these pathways is proposed in this report, using DigCompRO as national reference, the proposed digital competency framework for public administration, ECDL/ICDL certifications (already mapped to DigComp and DigCompRO), the Bacalaureate digital competence exam, IT and non-IT university programs (with digital modules and Diploma Supplements), ANC/Ministry of Labor–authorized adult training, vendor-specific schemes (Microsoft, Cisco), online platforms and micro-credentials (e.g. Coursera), and INA/NACS training programs financed through NRRP. Although rich, these channels are not aligned through a single reference framework or clear equivalence rules, making it difficult for public institutions to compare certificates, avoid duplication, and use credentials consistently in HR decisions.

Based on EU practice (e.g. PIX in France, BAIT/IKANOS in the Basque Country, other relevant DigComp-aligned schemes), a set of design principles are proposed: (i) a clear standard for public administration (the proposed digital competency framework aligned with DigCompRO and DigComp 3.0); (ii) objective, task-based digital skills testing via a dedicated platform; (iii) recognition of prior learning and non-formal/informal routes; (iv) robust governance; and (v) portable, verifiable credentials.

Eight recommendation blocks are proposed to structure the proposed system:

1. The formal adoption of the general digital competency framework as the standard for testing and development in the civil service;
2. The implementation of a hybrid recognition system that maps diverse routes (ICDL, university diplomas, INA/NACS certificates, micro-credentials) to this framework and avoids over-standardization;
3. The adoption of "equivalence matrices" linking the general digital competency framework for the public administration with ICDL and the bacalaureate digital exam;

4. The introduction of mandatory reference to DigComp EU / DigCompRO / the general digital competency framework for the public administration in any digital skills training design;
5. The ensuring the systematic use of DigComp -referenced diplomas and certificates in recruitment and internal mobility, including introducing digital-skills badges (e.g. “data steward”, “cyber defender”, “ai-ready civil servant”) in SIMRU to signal digital talent.
6. Strengthening INA as a certification hub, with a pix-style self-assessment and certification portal and a “digital skills passport” interoperable with HRMIS so assessment results are recorded and can support workforce planning and, later, promotion and mobility.
7. The development of strategic partnerships with universities, using their digital infrastructure (LMS, content studios, evaluation expertise) to host content, co-design curricula, and evaluate impact of training.
8. Consolidating and further developing governance roles: ADR as technical and standard-setting authority (DigCompRO, mappings, ICT roles), NACS as owner of the civil service HR and competency system, and INA as implementation and certification operator, working under phased implementation and building EU-level partnerships to ensure quality, comparability and sustainability.

Finally, the operationalization of the general digital competency framework is proposed to follow a sequenced, low-risk rollout aligned with the current HR reforms. The approach is explicitly phased so digital competencies are introduced only where tools, legal certainty, and institutional capacity already exist, and only expanded after evidence of readiness.

Phase 1 – Foundation (2026–2028) entails introducing digital competencies by adapting the legal framework and ensuring operationalization in two key HR processes. As a first step, the proposed model should be anchored in the Administrative Code as a distinct category of general competencies, defining all digital competencies and setting minimum proficiency levels by job category. Detailed descriptors are regulated through secondary legislation to allow updates. During this phase, use of digital competencies is legally limited to recruitment and training only, with explicit exclusion from performance appraisal, promotion, and mobility to avoid premature high-stakes application. In this first phase, job analysis becomes the key operational tool for ensuring proportionate use of digital competencies. Institutions apply a simplified, task-based screening to identify where higher proficiency levels or truly specific digital competencies are justified beyond the legal minimum, with working groups strengthened by digital expertise. Any deviations from baseline requirements must be evidence-based and endorsed by NACS to prevent artificial inflation of standards. In recruitment, only a limited subset of competencies is tested at entry. The national competition assesses minimum proficiency (Level A) across 8 selected competencies from Areas 1–5, replacing the current basic IT test. This covers less than 40% of the full framework and ensures fairness and feasibility. Any justified specific digital competencies are tested only in the job-based selection stage by institutions. Certificates and diplomas already mapped to DigCompRO or ICDL can be recognized to avoid unnecessary re-testing.

The primary system focus under Phase 1 is capacity building. A digital skills assessment platform is developed, and targeted learning modules are made available to support large-scale upskilling and evidence-based training needs assessment, as detailed in Output 4.

Phase 2 – Expansion and consolidation (from 2029) entails more advanced training and potential expansion of digital competencies into other HR processes. Once the assessment platform, national certification pathways, and INA training infrastructure are fully operational, digital competencies are integrated more broadly across HR processes. National recruitment can then use differentiated test batteries reflecting professional grades (assistant, principal, senior, managerial), and verify both

minimum and higher proficiency thresholds justified in law or through job analysis. Testing of specific digital competencies remains at the institutional selection stage. In performance management, digital competencies are introduced only as developmental diagnostics, not as scored criteria. A dedicated Digital Development Plan section is added to appraisal forms to document learning needs and guide individual and institutional training planning without affecting ratings. Digital competencies enter promotion and mobility processes only after a formal readiness review confirms that assessment tools, training provision, and certification systems function reliably. At that point, certified digital proficiency levels become part of eligibility criteria, with HRMIS systems updated to record and apply this evidence consistently.

Overall, the roadmap ensures that early implementation delivers tangible benefits through recruitment and learning while safeguarding proportionality and fairness. Full integration into talent management occurs only once the supporting ecosystem is proven, allowing digital competencies to become a normalized, credible, and low-risk element of civil service HRM.

1. Introduction and scope

1.1 Context and rationale

1. **Strengthening the digital capacity of Romania’s public administration requires not only strategic vision but also the systematic integration of digital competencies into human resources (HR) practices.** Over the past years, Romania has made important progress in advancing public sector digitalization and modernizing human resources management (HRM). Building on recent efforts to introduce general competency frameworks in civil service HRM, the country now seeks to complement these advances with a dedicated digital competency framework, recognizing the growing importance of digital skills. Through a dedicated Technical Support Instrument (TSI) project, implemented by the World Bank in collaboration with the European Commission, supports the Government of Romania - through the National Agency of Civil Servants (NACS), the Authority for the Digitalization of Romania (ADR), and the National Institute for Administration (INA) - in developing and institutionalizing a general digital competency framework for civil servants, designed to align workforce development with the country’s broader digital transformation priorities.

2. **The Technical Support Instrument (TSI) project “Developing a General Digital Competency Framework for Civil Servants in Romania” was designed as a multi-stage process that builds progressively from analysis to support for future implementation.** It complements ongoing HRM reform efforts supported by the World Bank through the NRRP-financed Reimbursable Advisory Services (RAS) on Support to NACS for HRM reforms¹, which aim to further adapt the policy framework and inform targeted adjustments to ensure sustainability of key reforms in recruitment, workforce planning, as well as proposed development program for senior civil servants across the public administration. Digital competencies represent a critical enabler of these reforms, supporting data-driven workforce planning and the design of future learning programs.

3. **The project capitalizes on synergies with the Digital Skills Training for All Romanians RAS, implemented with the Ministry of Economy, which adapted the European DigComp 2.2 framework into the national DigCompRO for the citizens of Romania, adopted through GEO 27/2025.** These frameworks provide the common reference point for defining the digital competencies relevant to Romania’s civil service workforce and for aligning national initiatives with EU policy orientations. DigCompRO provides the national foundational reference for digital competence, and the current work builds on it to develop a competency framework relevant for the public administration, targeted to a distinct segment of the workforce - Romania’s civil servants. This ensures that the digital competency expectations for public administration are anchored in the same common “root system” as national digital-skills policies, while also tailoring them to the particular roles, tasks and responsibilities of public institutions. In this way, the project maintains alignment with EU orientations, while creating a coherent internal logic and continuity between national initiatives and PA-specific operationalization.

4. **This output corresponds to Activity 3 under the TSI project.** The project covers the following sequence of activities:

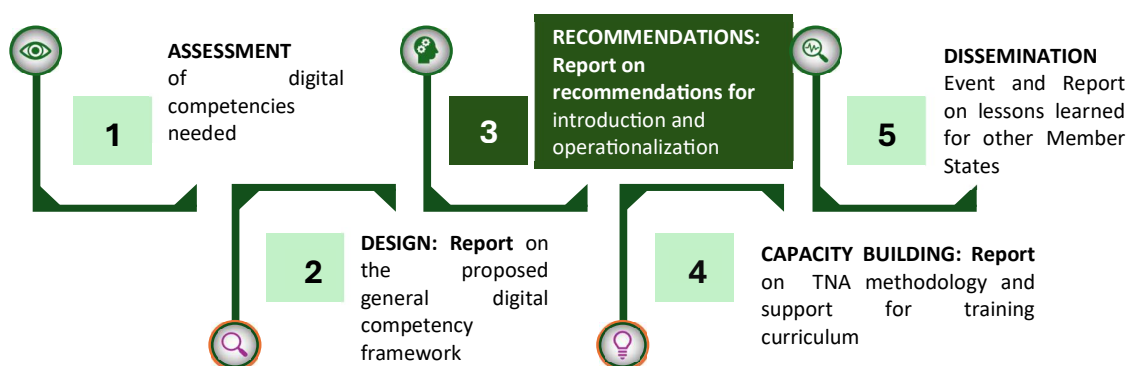
- **Activity 1 – Assessment of digital competency needs:** established the analytical foundation through a review of EU and national policies, a job analysis of civil service roles, and foresight exercises to anticipate future skill requirements.

¹ Reimbursable Advisory Services (RAS) Agreement on Support to the National Agency for Civil Servants on Human Resource Management Reforms in Romania (P503309).

- **Activity 2 – Design of the digital competency framework:** defined the structure of digital competency areas, including knowledge, skills, and attitudes, and developed proficiency levels. This phase also included pilot testing and stakeholder consultations to validate and refine the framework.
- **Activity 3 – Integration into HRM processes:** focuses on developing recommendations and methodologies for embedding the digital competency framework into Romania’s HR systems and legal context. This includes identifying operational mechanisms for applying digital competencies in key HR processes such as recruitment, performance management, and training.
- **Activity 4 – Capacity building and implementation support:** provides tools and learning opportunities to support the application of the framework, including study visits, updates to training needs assessment methodologies, and the development of curriculum elements.
- **Activity 5 – Knowledge sharing and dissemination:** synthesizes lessons learned and facilitates exchange with other EU Member States to inform similar reform efforts.

5. **This output marks a transition from *conceptual design* (Activity 2) to *practical operationalization*.** It translates the digital competency framework into actionable recommendations for legal adoption and HRM integration. The general digital competency framework proposed under Output 2² provided the conceptual model: it defined the structure of digital competency areas, described the associated knowledge, skills, and attitudes, and established proficiency levels aligned with both the European DigComp 2.2 and the national DigCompRO frameworks. This model established a clear reference for the digital competencies expected from public servants at different levels of responsibility. The current report moves the design into the next phase - support for conceptualizing the operationalization pathway. Targeted recommendations on the training system (including the training needs assessment process) are covered in Output 4.

Figure 3 TSI project intervention logic: Report corresponds to Activity 3



6. **The long-term impact of the proposed digital competency framework depends on its effective integration into HR systems and practices.** Without clear methodological guidance, institutions may find it difficult to translate the framework’s principles into operational procedures. To ensure that digital competencies become part of everyday HR management, they need to be effectively embedded, particularly in recruitment and training interventions³.

² World Bank, Output 1- Report on the Assessment of the Digital Competencies Needed in the Romanian Civil Service : Taking into Account Relevant Policies at the National and European Union Levels, developed under the TSI project Developing a General Digital Competency Framework for the Romanian civil service, 2025. Available at: <https://documents.worldbank.org/pt/publication/documents-reports/documentdetail/099071725093059745>.

³ As detailed also in Output 4 developed under the TSI project.

7. **The objective of this output is to support the legal introduction and operationalization of the digital competency framework. In that sense, the deliverable is structured around three key pillars:**

- i. **The first pillar presents recommendations for the legal adoption** and institutional embedding of the general digital competency framework model within Romania's civil service system.
- ii. **The second pillar focuses on the methodological framework for operationalizing digital competencies across key HRM processes.**
- iii. **The third pillar is meant to inform improvements in the certification/validation/recognition system of digital competencies**, as this system impacts the operationalization of the digital competency framework.

8. **The inclusion of dedicated legal recommendations builds on the findings of Output 1, which examined Romania's normative tradition and institutional context and identified the regulatory barriers and enablers relevant to the application of competency-based approaches.** Given Romania's normative administrative tradition, where the introduction of new management instruments requires explicit legal provisions, these recommendations are essential to ensure that the digital competency framework can be formally recognized, integrated into HR procedures, and applied consistently across institutions.

9. **Recognizing institutional capacity constraints, the proposed methodology on operationalization promotes a gradual and pragmatic approach to integrating digital competencies into selected HR processes.** The practical recommendations on operationalization draw directly on the assessment and design phases carried out under Activities 1 and 2, recognizing that the introduction of the general competency framework has stretched institutional capacity, as HRM units continue to internalize the principles of competency-based management. In this context, the deliverable proposes a gradual implementation pathway – focusing on HR processes where the integration of digital competencies can generate early, visible impact and provide lessons for subsequent expansion to other HR areas such as performance management and career development. This phased approach reflects both the need for institutional learning and the pragmatic constraints of reform implementation within Romania's administrative and legal environment. The methodological framework for operationalization aims to:

- translate the recommendations of Output 2 into actionable steps for use by HR departments and central coordinating bodies;
- promote coherence between digital transformation policies and HRM modernization efforts; and
- support a sustainable system for continuous upskilling and professional development.

10. **The third pillar focuses on strengthening the system through which digital competencies are certified, validated, and recognized, as this has a direct impact on how the digital competency framework can function in practice.** Certification instruments, whether national, sectoral or institution-specific, play an important gatekeeping role, as they determine how competency evidence is generated, how proficiency levels are confirmed, and how skills are made visible and comparable across institutions. In Romania, this pillar is particularly important because the quality and credibility of competency recognition determines whether civil servants and HR departments can rely on these instruments for recruitment, mobility, career development and training decisions. Therefore, this pillar seeks to align the PA digital competency framework with the evolving national ecosystem of validation instruments (including those introduced through DigCompRO), promote better linkages between training outcomes and competency evidence, and gradually move towards recognition mechanisms that are consistent with European practices.

1.2 Methodological approach for the development of this output

11. **The methodological approach combined legal analysis, HRM process mapping, and iterative consultation with institutional counterparts.** The work was informed by both desk research and structured feedback loops. Consultations involved not only relevant counterparts and the institutions involved in the piloting of the digital competency framework, but also the HR Working Group established under this TSI project, comprised of 30 HR experts from the central public administration, which ensured that recommendations were grounded in actual practice and procedural realism.

12. **The legal recommendations were developed through a structured mapping of legislation at primary and secondary levels governing HRM in Romania's public administration.** The analysis covered laws and procedures related to recruitment, performance appraisal, professional development, and career advancement, as well as the competencies framework and the mandates of key institutions such as NACS, ADR, and INA.

13. **Building on this mapping, the team identified entry points for introducing digital competencies in both primary and secondary legislation.** The process was informed by consultations with HR practitioners and institutional representatives to assess the practical implications of integrating digital competencies into existing HR procedures. Feedback from legal experts during the consultation and pilot phases (Activity 2) further refined the proposals to ensure they are both technically sound and administratively feasible, addressing potential overlaps and ensuring alignment with Romania's normative hierarchy. Legal anchoring is critical to ensure the consistent and sustainable application of the digital competencies across the civil service.

14. **This work also draws on the World Bank's 2021 *Manual for the operationalization of competencies in HRM processes*⁴,** which provides detailed procedural guidance. Given the comprehensive nature of that *Manual*, this deliverable does not repeat HR processes sequences but instead highlights what is distinct to digital competencies - including specific process steps and implications for implementations.

15. **The methodology also builds on diagnostic findings and feedback from pilot consultations, reflecting current institutional capacity and HR system gaps.** It promotes a gradual implementation pathway, beginning with two HR processes - recruitment and training - where integration can produce early, visible results. This phased approach allows institutions to build familiarity with the framework, test tools, and progressively extend application to performance appraisal and career development.

16. **Finally, for the third pillar, the methodology focused on mapping how digital competency evidence is currently generated, recognized and used in HR decisions,** and proposed improvement measures without adding unnecessary layers of complexity. Because Romania already faces known bottlenecks in this domain (fragmented validation instruments, limited use of evidence in HR decisions), the review also covered the relevant international experience, to document concrete measures that have worked in comparable systems. This enabled the team to outline realistic adjustments to the certification / validation / recognition chain that would allow digital competency evidence to be used credibly and consistently in HR processes, without requiring an immediate overhaul of the current system.

⁴ Developed by the Bank as part of the support provided to NACS under the HRM RAS. World Bank, HRM procedural manual, Available at: https://sgg.gov.ro/1/wp-content/uploads/2010/01/Livrabilul-8.-RU-manualENG_Part-III_Utilizarea-competentelor-in-procesele-de-management-RU.pdf.

2. Informing the adaptation of the normative framework for digital competencies

17. **This section sets out the legal recommendations needed to introduce, define and use the general digital competencies in Romania's civil service.** It explains how the draft digital competency framework should be anchored in the Administrative Code and related secondary/tertiary acts; clarifies the relationship with DigComp 2.2/DigCompRO; defines “general digital competencies” as a distinct category of general competencies; specifies which competencies and minimum complexity levels apply to each civil service position; and details how they are to be reflected in job analysis, job descriptions and HR processes (with assessment limited to recruitment and use across professional development). The recommendations also identify precise articles to amend, propose the regulatory placement of descriptors, and ensure coherence with existing competency architecture and NACS' endorsement roles.

18. **The recommendations included in this section cover a dense set of article-level amendments, reflecting the technical nature of anchoring digital competencies in the existing regulatory framework.** The analysis does not aim to provide comprehensive drafting support or an exhaustive coverage of all regulatory provisions that may ultimately require amendment. Rather, it identifies the main legal acts of relevance and highlights priority areas for intervention. To support clarity and operational use, **Annex 3** provides an article-by-article overview of recommended modifications - specifying provisions to be added, revised, or removed.

2.1 Anchoring digital competencies in the legal competency-based HRM system

19. **The draft digital competency framework for the Romanian civil service, developed under the TSI project, sets out the digital competencies that civil servants should have, depending on the type of civil service position they hold.** The draft digital competency framework for the Romanian civil service proposes 22 digital competencies (presented in **Table 1**), which are grouped into three competency types and seven competency areas: type I - fundamental competencies (comprising competency areas 1-5), type II - digital transformation (comprising competency area 6), and type III - digital leadership (comprising the competency area 7). There are three levels of proficiency (complexity) for the digital competencies: A - basic level, B - intermediate level, and C - advanced level. The digital competency framework sets out descriptors for each level of complexity of each of the digital competencies.

20. **As part of the design⁵, the Bank team already recommended a set of implementation features that deliberately simplify and focus the use of the framework, and these features need to be clearly regulated.** This allows a realistic and manageable introduction of general digital competencies into the civil service system. The main recommended features are:

- *Clear legal anchoring of required competencies per position.* The legislation should be updated to set out which of the digital competencies that comprise the digital competency framework

⁵ For details, please consult World Bank, Output 1- Report on the Assessment of the Digital Competencies Needed in the Romanian Civil Service : Taking into Account Relevant Policies at the National and European Union Levels, developed under the TSI project Developing a General Digital Competency Framework for the Romanian civil service, 2025. Available at: <https://documents.worldbank.org/pt/publication/documents-reports/documentdetail/099071725093059745>.

are required for each type of civil service position. The digital competencies set out by law will then be transposed accordingly in the job descriptions for the civil service positions.

- *Clear general rule and a certain degree of flexibility on the applicability of competency levels:* the minimum competency levels should be set by law, but the law should also ensure institutional discretion to set levels also above the minimum, in justified cases. In this way, based on evidence (based on job analysis), when drawing up the job descriptions for the civil service positions, public authorities and institutions will decide on the actual levels of complexity for each civil service position (under the condition that they are not lower than the minimum levels).
- *Targeted use for two HR processes only, at least in the first phase of implementation:* The digital competency framework will be used only in two of the HR management processes: recruitment and professional development/training.
- *Limited and proportional assessment scope at entry in the civil service:* Only a set of selected digital competencies within the competency areas 1-5 at the basic level (A level) of complexity will be assessed in the recruitment process.
- *Standardized five-level evidence scale for assessment proposed, with flexibility for adapted scales in different HR processes.* The digital competencies could be assessed using a five-levels scale, where level 1 corresponds to the digital competency not being demonstrated at all, and level 5 corresponds to the digital competency being fully demonstrated.
- *A phased implementation of the general digital competency framework.* In an initial phase, general digital competencies are to be used exclusively in recruitment and professional development/training and are not applicable to other HR processes such as performance appraisal, promotion, mobility or disciplinary procedures. Any future extension of their use to additional HR processes should be conditional on the fulfilment of predefined preconditions - such as the availability of a digital assessment platform, standardized tools, and dedicated training modules.

Table 1 The draft general digital competency framework for the Romanian civil service

Digital competency type	Digital competency area	Digital competency	
I. Fundamental competencies	Digital literacy in public administration	1.1	Searching and accessing data, information and digital content
		1.2	Evaluating data, information and digital content
		1.3	Managing data, information and digital content
	Digital communication and collaboration	2.1	Communicating, interacting and fostering citizen and business participation through digital technologies
		2.2	Sharing and collaborating in digital teams in intra- and inter-institutional contexts
		2.3	Ensuring digital integrity and accountability in public administration
		3.1	Developing, integrating and re-using digital content
		3.2	Delivering and contributing to digital public services

	Digital content and digital public services	3.3	Ensuring compliance with legal and regulatory frameworks and standards in digital environments
	Safe, responsible and sustainable use of resources	4.1	Protecting devices and infrastructures
		4.2	Managing digital identities, and protecting personal data and privacy
		4.3	Supporting healthy and sustainable digital practices
	Problem-solving through digital technologies	5.1	Managing digital devices, including identifying and solving technical problems
		5.2	Using automation tools in digital environments
II. Digital transformation	Digital transformation in public administration	6.1	Contributing to digital transformation in public administration, driving innovation and improvement
		6.2	Developing digital competence in the workplace
		6.3	AI Literacy in public administration
III. Digital leadership	Digital leadership and governance in public administration	7.1	Managing performance and operations through digital technologies
		7.2	Leading team development in digital environments
		7.3	Driving and leading innovation and digital transformation
		7.4	Strengthening public services and ensuring responsible digital governance and cybersecurity
		7.5	Anticipatory and strategic thinking supporting public administration

21. **The digital competency framework is designed to build digital capacity in the civil service, and is aligned with existing reference models, like DigComp 2.2 and the upcoming DigComp 3.0 and the Romanian citizens' digital competency framework (DigCompRo).** DigCompRo, set out by GEO No 27/2025, is the digital competency framework that public authorities and institutions with responsibilities in the areas of employment, education, and vocational training must use as a reference in developing occupational and vocational training standards.⁶ Furthermore, DigCompRo is used to assess and develop the digital competencies of the beneficiaries of training programs.⁷ According to GEO No 27/2025, the competent authorities may (but are not mandated to) apply DigCompRo to update the descriptions of digital competencies of occupations relevant to the employer in relation to the competencies and performance levels described in DigCompRo.⁸ It should be noted that GEO No 27/2025 does not mandate that employers (including public authorities and institutions acting as employers) define/describe the digital competencies required of their employees only by using DigCompRo. Therefore, setting out a digital competency framework for the civil service does not infringe upon any binding legal provision in GEO No 27/2025. The proposed digital competency

⁶ According to Article 9 of the annex to GEO No 27/2025 approving the Digital Competency Framework for Romanian citizens.

⁷ According to Article 17(1) of the annex to GEO No 27/2025 approving the Digital Competency Framework for Romanian citizens.

⁸ According to Article 7(2) of the annex to GEO No 27/2025 approving the Digital Competency Framework for Romanian citizens.

framework for civil servants builds on DigCompRo, which serves as the national reference point for sector-relevant digital competency frameworks.

22. The digital competencies set out in the new framework should be formally defined in the Administrative Code as a distinct category of *general competencies*, consistent with the existing system of competency definitions. The current legislation on civil servants already operates with the notion of *competencies*, making a distinction between (i) *general competencies*, which are all the competencies required of all civil servants to work effectively at any hierarchical level and regardless of specialization,⁹ and (ii) *specific competencies*, which are the mandatory competencies set out by the public authorities and institutions for each of the civil service positions in their organizational charts, required for holding that civil service position.¹⁰ By design as well as in view of their main characteristics and intended use, digital competencies that comprise the digital competency framework pertain to the general competencies and should be defined and framed as such. In the new legal provisions, it would be recommended to designate the digital competencies that comprise the digital competency framework by the term "*general digital competencies*", for the following reasons:

- To underline that the digital competencies that comprise the digital competency framework are general competencies, and to allow, consequently, for the legal provisions that apply to general competencies to also apply, where appropriate, to these digital competencies. It should be noted that most of the existing legal provisions that apply to the general competencies set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code will not apply to the general digital competencies, as the latter will be subject to special provision, to ensure application only in selected HR processes. Nonetheless, there will be legal provisions that will apply to both types of general competencies.
- To differentiate them from the general competencies that comprise the general competency framework set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code.
- To allow for the distinction between (i) the digital competencies that comprise the digital competency framework (which are general competencies) and (ii) all other digital competencies that might be required to hold a particular civil service position which can be identified in specific institutional settings (which are specific competencies). If, instead of the term "*general digital competencies*", the term "*digital competencies*" were to be used to designate the digital competencies that comprise the digital competency framework, then confusion may arise as to whether all digital competencies should be considered general competencies. In fact, there are other digital competencies which are required to hold certain civil service positions, and which fall within the scope of the specific competencies.

23. The general digital competency framework should be set out by law as a separate framework and not be integrated directly into the existing general competency framework. While the general digital competencies could be mapped against the general competencies that comprise the general competency framework set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code, there are significant differences between these competencies, in terms of their design and intended use (as illustrated in [Table 2](#)). Therefore, to accommodate these differences, a separate general digital competency framework should be set out by law, separate from the general competency framework set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code. This solution has the added advantage of not overcomplicating the regulation on the existing general competency framework, which could be left as is.¹¹ The law currently provides the possibility of having

⁹ According to Article 3(i) of Annex No 8 to GEO No 57/2019 on the Administrative Code.

¹⁰ According to Article 3(k) of Annex No 8 to GEO No 57/2019 on the Administrative Code.

¹¹ The alternative of embedding the general digital competencies in the existing general competency framework would entail drafting considerably more cumbersome legal provisions (especially, since the general digital competencies have their own descriptors, different from the descriptors of the general competencies set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code) which would, in turn, lead to difficulties in interpreting and applying them.

multiple general competency frameworks¹². Thus, setting out a general digital competency framework, separate from the general competency framework set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code, would be in line with the existing legal provisions.

Table 2 Differences between the general competency framework and the general digital competency framework

The general competency framework set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code	The general digital competency framework (as developed under the TSI project)
The general competencies and the levels of complexity required for the different types of civil service positions are set out by law, so public authorities and institutions are bound to include them as such in the job descriptions.	While the general digital competencies required for the different types of civil service positions will be set out by law, only the minimum the levels of complexity for those competencies will be laid down in the legislation for the different types of civil service jobs, so the public authorities and institutions will decide what are the actual levels of complexity required/needed in their case.
The general competencies have 4 levels of complexity: basic, operational, enhanced, and strategic. These complexity levels are linked only to the hierarchical progression logic of civil service jobs.	The general digital competencies have 3 levels of complexity: A – basic level, B – intermediate level, and C – advanced level. The complexity levels reflect more a logic of technical complexity that increases as civil service roles evolve, also depending on the institutional context. The C level is not automatically mapped to the highest professional grades.
In the recruitment process, all the general competencies are assessed at the level of complexity set out by law for the type of civil service position under competition.	In the recruitment process only selected general digital competencies within the competency areas 1-5 are recommended to be assessed, as proposed in Output 2 and in Chapter 3 of this report (the general digital competencies within the competency areas 6 and 7 are not assessed at all in the recruitment process) and only at the basic level (A level) of complexity (notwithstanding the actual level of complexity set out by law and by the public authorities and institutions for the civil service positions under competition). The rest of the general digital competencies are expected to be developed on the job, though targeted learning interventions.
General competencies required for state and territorial civil services positions are assessed in the <i>advanced</i> testing (as part of the national competition).	General digital competencies required for state and territorial civil services positions will be assessed in the <i>preliminary</i> testing conducted as part of the national competition (i.e. the second test of the national competition). This follows the current logic, where assessment of the general IT knowledge is included in the preliminary testing phase.

¹² E.g., Article 401(1)(m) of GEO No 57/2019 on the Administrative Code.

General competencies are tested in promotion, to prove the competency level requested for the type of civil service position.	General digital competencies are recommended not to be tested in other HR processes – will not be used in promotion, mobility, but only in recruitment and training - in the first phase of implementation of the general digital competency framework. The first phase of implementation means until the digital assessment platform and training modules are developed to facilitate upskilling and certification mechanisms. The legal framework is expected to clearly exclude digital competencies from these HR processes in the first years, until pre-conditions for the application of digital competencies in promotion and mobility are put in place.
General competencies are used in the assessment of the individual professional performance of the civil servants that hold state or territorial civil service positions.	General digital competencies will not be used in the assessment of the individual professional performance of civil servants and legislation should clearly exclude them from the provisions of the annual performance appraisal rating process.

24. **Regulating by law the general digital competency framework will entail drafting new legal provisions as well as amending several of the existing legal provisions (most notably, the Administrative Code).** The current relevant legislation structures competencies in two broad categories: general competencies and specific competencies. Fitting the general digital competencies within this structure requires, on the one hand, framing the general digital competencies as a type of general competencies (in order to comply with the general competencies/specific competencies structure), while, on the other hand, properly separating, where appropriate, the legal provisions on the general digital competencies from the legal provisions on the general competencies that comprise the general competency framework set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code (in order to make clear the distinction between these two types of general competencies).

25. **The different approaches to regulating the general digital competencies can be exemplified as follows:**

- a) Article 401(1)(m) of GEO No 57/2019 on the Administrative Code stipulates that NACS has the responsibility to draw up general competency frameworks. The use of the term "*frameworks*" (i.e., in the plural) enshrines the possibility to have both the general competency framework set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code and a separate general digital competency framework. Therefore, this legal provision would not have to be amended in any way.
- b) Article 467(9) of GEO No 57/2019 on the Administrative Code provides the possibility for individuals that already hold civil service positions to apply to competitions for other executive civil service positions "*[...] characterised by general competencies with the same level of complexity or a lower level [than the one for the position they already hold], within the meaning of the provisions of Article 17(b) of Annex No 8 [...]*".

Since having general digital competencies will be a new requirement for holding civil service positions, Article 467(9) of GEO No 57/2019 on the Administrative Code will have to be amended to also reference this requirement: "*[...] characterised by the same general digital competencies, within the meaning of the provisions of Article of Annex No 8* [i.e., the

article that will set out the general digital competency framework], **and by general competencies with the same level of complexity or a lower level, within the meaning of the provisions of Article 17(b) of Annex No 8 [...]**".

- c) Article 3(f) of Annex No 10 to GEO No 57/2019 on the Administrative Code defines the term "assessment center", where the advanced testing (i.e. the third test of the national competition) is conducted, as "*the legal entity governed by public or private law, accredited under the law to organize verification and certification processes for the general competences [...]*".

Since the general digital competencies will not be verified in the advanced testing, which is conducted in assessment centers, but in the preliminary testing (i.e. the second test of the national competition), which is conducted in testing centers, the definition of the assessment center, laid down in Article 3(f) of Annex No 10 to GEO No 57/2019 on the Administrative Code, will have to be amended to include a more pinpointed reference: "*the legal entity governed by public or private law, accredited under the law to organize verification and certification processes for the general competences set out in Article 17 of Annex No 8 to this code [...]*".

26. **Regulating by law the general digital competencies will entail replacing the current legal requirement to have theoretical IT knowledge at beginner user level, which is one of the prerequisites for holding a civil service position, with the requirement to have general digital competencies at basic level (A level).** The requirement to have general digital competencies overlaps with the requirement to have theoretical IT knowledge at beginner user level. Thus, the legal provisions that currently refer to having theoretical IT knowledge at beginner user level will have to be amended by, depending on the content of the provisions:

- abolishing the reference to the theoretical IT knowledge (e.g., Article 465(1)(g¹) of GEO No 57/2019 on the Administrative Code, Article 3(o) of Annex No 10 to GEO No 57/2019 on the Administrative Code; item III of Annex No 10 to GEO No 57/2019 on the Administrative Code, which sets out the template for the standardized job description);
- replacing the wording "*theoretical IT knowledge at beginner user level*" with the wording "*general digital competencies at basic level*" (e.g., Article 3(ee) of Annex No 10 to GEO No 57/2019 on the Administrative Code);
- rephrasing the legal provision to reflect the new requirement regarding the general digital competencies (e.g., Article 47(3) of Annex No 10 to GEO No 57/2019 on the Administrative Code).

27. **The key defining features of the general digital competencies and the general digital competency framework should also be set out in the Administrative Code.** There are several reasons advocating for the solution to include in the Administrative Code the key defining features of the general digital competencies and of the general digital competency framework:

- Their legal nature (inter alia, as one of the requirements to hold a civil service position) demands that they be regulated by a piece of primary legislation.¹³
- They pertain to the civil servants' statute, which is regulated by the Administrative Code.
- They must be integrated in the existing process for the recruitment of civil servants, which is primarily regulated by the Administrative Code (most notably, in Annex No 8 and Annex No 10 to GEO No 57/2019 on the Administrative Code).

The key defining elements that should be regulated in the Administrative Code are:

¹³ In fact, according to Article 73(3)(j) of the Romanian Constitution, the civil servants' statute is subject to regulation by organic law.

- The definition for the term "*general digital competencies*" (to be included in Article 3 of Annex No 8 to GEO No 57/2019 in the Administrative Code).
- The list of all the general digital competencies, grouped by types and areas of competency (similar to the structure used for the general competencies in Article 8 and Article 9(1)-(5) of Annex No 8 to GEO No 57/2019 on the Administrative Code) and the definitions of each of the general digital competencies.
- Provisions setting out which general digital competencies are required for each category of civil service position (similar to the provisions on the general competencies set out in Article 9(6)-(8) of Annex No 8 to GEO No 57/2019 on the Administrative Code). It should be noted that, as opposed to the provisions in Article 9(6)-(8) of Annex No 8 to GEO No 57/2019 on the Administrative Code, which set out the general competencies that will be verified for each category of civil service position, in the case of the similar provisions on the general digital competencies, the wording "*are verified*" will have to be replaced with the wording "*are required of*" or "*are set out for*", due to the fact that the general digital competencies within the competency areas 6 and 7 are not designed to be assessed in recruitment and that for areas 1-5 only selected competencies will be targeted in recruitment.
- The classification of the levels of complexity of general digital competencies, and the definitions/characteristics of each level of complexity (similar to the provisions on the levels of complexity of the general competencies, set out in Articles 12-16 of Annex No 8 to GEO No 57/2019 on the Administrative Code).
- The outline of the general digital competency framework (similar to the outline of the general competency framework, set out in Article 17 item (I) of Annex No 8 to GEO No 57/2019 on the Administrative Code), comprising:
 - the list of general digital competencies, grouped by types and areas of competency, required for each type of civil service position;
 - the minimum (recommended) level of complexity for the general digital competencies required for each type of civil service position;
- A provision stating that each public authority/institution will determine the actual levels of complexity for the general digital competencies required for the civil service positions in its organizational chart (in case some departments have responsibilities that are closely linked to digital transformation, more advanced data analysis etc.) as part of the job analysis process (presented in Chapter 3 of this report), under condition of ensuring compliance with the minimum levels of complexity set out in the general digital competency framework.
- Provisions regulating the way in which general digital competencies will be assessed in the recruitment process and the assessment scale applied for these competencies (either a 5 level scale or a points system). In case a five-level scale is adopted, this would be similar to the assessment scale of the general competencies set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code. However, separate provisions will have to be drafted for the general digital competencies, because of the different way in which they will be assessed: the general digital competencies will be assessed as part of the preliminary testing phase by way of multiple-choice tests and potentially by practical tests, while the general competencies set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code are expected to be assessed either by direct observation of the candidates' behavioral indicators or by the candidate's self-assessment of the frequency of self-perceived behavioral indicators).
- A provision clarifying phased implementation and establishing that the use of general digital competencies beyond recruitment and training may be extended only after a formal evaluation confirms system readiness (including the availability of the assessment platform,

standardized tools, and availability of training modules). The purpose of including phased implementation provisions in the Administrative Code is to create legal safeguards that prevent the digital competency framework from being extended prematurely to processes such as performance appraisal, promotion or mobility, without prior proof of institutional capability, functional tools, and system readiness. This ensures that expansion happens only when the necessary conditions are met, preserving fairness, consistency and credibility in the application of digital competencies.

28. **The detailed descriptors for each level of complexity of the general digital competencies should be set out in secondary legislation (i.e., Government decision) or of tertiary legislation (i.e., order issued by the president of NACS).** The detailed descriptors for each level of complexity of the general digital competencies will have to be adopted by a legal instrument to ensure they are consistently interpreted and applied. There are two main options in terms of the type of legislation by which the detailed descriptors of the general digital competencies could be regulated:

- By primary legislation, namely by including the detailed descriptors in Annex No 8 to GEO on the Administrative Code. This option has the advantage of mirroring the approach currently applied for the regulation of the descriptors of the general competencies, which are set out in Article 17 item (II) of Annex No 8 to GEO No 57/2019 on the Administrative Code. The major drawback of this option is that it would make it quite difficult to modify the legal provisions on the descriptors of the general digital competencies as it would entail amending primary legislation, which is a more cumbersome legislative process. This drawback is amplified by the fact that general digital competencies are subject to a constant, fast-paced progress and which is thus more likely to require frequently amending the legislation.
- By secondary or tertiary legislation. This option has the considerable advantage of allowing to adapt the regulation on the detailed descriptors of general digital competencies to technological changes more swiftly, because the legislative process to amend secondary or tertiary legislation is more streamlined than the process to amend primary legislation. Thus, the requirements regarding the general digital competencies could be aligned with the developments in the digital area by simply amending the secondary/tertiary legislation provisions on the detailed descriptors (without having to amend the Administrative Code itself). Additionally, secondary or tertiary legislation is more suited to regulate aspects of such granularity as the detailed descriptors of the general digital competencies.

In view of the abovementioned arguments, it is recommended that the detailed descriptors for each level of complexity of the general digital competencies be set out in a piece of secondary or tertiary legislation.

2.2 Normative approach to ensuring clear and flexible use of complexity levels

29. **The legal framework should only set the mandatory minimum complexity levels across civil service jobs, while allowing controlled flexibility for institutions to tailor higher competency levels where justified, based on job analysis.** If institutions need to set complexity levels for certain digital competencies for selected jobs higher than the minimum levels foreseen in legislation, this should be done based on job analysis, informed by the job responsibilities set out in the official job description (i.e. demonstrating a clear link between the higher level of digital competency and the nature of the tasks and functions assigned to the position). Annex No 8 to GEO No 57/2019 on the Administrative Code regulates the job analysis process by which the general competencies (currently, the general competencies that comprise the general competency framework set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code) and, where appropriate, the specific competencies for

each civil service position are determined. To this end, a working group is set up at the level of each public authority/institution,¹⁴ which (i) conducts the job analysis of all the civil service positions in the organizational chart of that public authority/institution and (ii) draws up a report on the results of the job analysis¹⁵, which must include the transposition of the general competencies¹⁶ and the specific competencies identified for each position.¹⁷ The head of the public authority/institution approves the general competencies and the specific competencies identified for each civil service position¹⁸ and requests from NACS the endorsement of the specific competencies.¹⁹ After receiving the endorsement issued by NACS on the specific competences put forth by the public authority/institution, the standardized job description for each position is filled with the general competencies as well as with the specific competencies endorsed by NACS.²⁰ This job analysis process should be adapted to also include provisions on determining the complexity level for general digital competencies for each civil service position.

30. The regulation on the job analysis process should be amended by including legal provisions specifically dedicated to the way in which the general digital competencies and their levels of complexity are determined. The general digital competencies are not determined by the same rules as the ones applied to the general competencies set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code. Unlike the general competencies set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code, the standard levels of complexity of the general digital competencies should be transposed from the legislation only as minimum levels applicable to most civil service jobs. However, institutions will have the possibility to determine higher applicable complexity levels. These would be justified in certain cases in which the job responsibilities are more complex in terms of digital skills expected because they are linked to institutional/departmental targeted focus on digitalization/more advanced data analysis etc. Thus, the public authority/institution will decide what is the actual level of complexity for each of the digital competencies required for the civil service positions in its organizational chart; their degree of discretion will not be absolute, as the public authorities and institutions will be bound to respect the minimum level of complexity set out by law. Recommendations on adapting the job analysis process are included in chapter 3 of this report.

31. The relevance of the complexity levels set out for the general digital competencies should be limited, initially, only to calibrate the professional training/development process, since, in the recruitment process, the general digital competencies will be assessed only at the basic level, notwithstanding the level of complexity determined by the public authorities and institutions. The complexity levels of the general digital competencies may have a more significant impact in the future, depending on how the system will be capacitated to assess digital competencies and to ensure staff development through continuously available targeted training modules. Relevance will also depend on the extent to which the use of these competencies will be integrated in other HR management processes, after the assessment and development tools are put in place.

32. The levels of complexity of the general digital competencies, determined by the public authorities, should be subject to endorsement by NACS. In view of the discretion given to public

¹⁴ According to Article 23(1) of Annex No 8 to GEO No 57/2019 on the Administrative Code.

¹⁵ According to Article 27(1) and Article 28 of Annex No 8 to GEO No 57/2019 on the Administrative Code.

¹⁶ Currently, the general competency framework, laid down in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code, sets out the general competencies and their level of complexity depending on the type of civil service position. Thus, the report drawn up following the job analysis simply transposes for each civil service position the corresponding general competencies and levels of complexity set out by law for that type of position (i.e., the working group or the public authority/institution cannot change the general competencies, nor their levels of complexity).

¹⁷ According to Article 29 of Annex No 8 to GEO No 57/2019 on the Administrative Code.

¹⁸ According to Article 30(3)(c) of Annex No 8 to GEO No 57/2019 on the Administrative Code and Article 6(1)(c) of the framework methodology approved by Order No 332/2024, issued by the president of NACS.

¹⁹ According to Article 30 of Annex No 8 to GEO No 57/2019 on the Administrative Code and Article 15(1) of the framework methodology approved by Order No 332/2024, issued by the president of NACS.

²⁰ According to Article 31 of Annex No 8 to GEO No 57/2019 on the Administrative Code and Article 17 of the framework methodology approved by Order No 332/2024, issued by the president of NACS.

authorities and institutions to determine the levels of complexity required for the general digital competences, which bears a (limited) resemblance to the discretion that public authorities and institution have when determining the specific competencies, it would be advisable to extend the scope of the endorsement issued by NACS for the specific competencies to also cover the levels of complexity of the general digital competences. Thus, the relevant legal provisions (namely, Articles 25, 26, 29, 30 and 30¹ of Annex No 8 to GEO No 57/2019 on the Administrative Code, and framework methodology approved by Order No 332/2024, issued by the president of NACS) should be amended to provide that the levels of complexity for the general digital competencies, determined by the working group and approved by the head of the public authority/institution, are subject to the endorsement by NACS, before being included in the job descriptions. However, NACS should clearly specify in the job analysis methodology that its endorsement is primarily a procedural verification. The objective is to ensure that institutions propose higher proficiency levels than those set by law - or introduce specific digital competencies - only in duly justified, evidence-based cases and strictly as exceptions. In this role, NACS is not expected to reassess whether the digitally intensive tasks of a post truly require a higher proficiency level; rather, it verifies that institutions have followed the required procedural steps and that the justification for any higher threshold is coherent and properly documented.

33. **Similarly, as part of the endorsement, NACS should be expected to check that any *specific digital competencies* proposed by institutions do not artificially duplicate or re-label the general digital competencies** from the national framework. This safeguard ensures consistency across the civil service, prevents inflation of competency requirements, and avoids creating barriers to mobility or recruitment through unnecessary or overlapping digital criteria.

34. **It should also be clarified that these recommendations do not apply to ICT departments and ICT specialist roles.** Dedicated ICT role profiles have been proposed separately under Output 2²¹, and these roles should not fall under the scope of the general digital competency framework. However, if ICT departments also include general civil service jobs that, based on their generic responsibilities, cannot be mapped to the newly proposed ICT specialist roles (e.g. administrative, financial or policy functions placed structurally inside ICT units), then those positions remain within scope of the general digital competency framework. In such cases, through the job analysis process, institutions may determine that those roles could justifiably require higher levels of digital complexity than similar general civil service functions in other organizational units, and can reflect this in the job description, based on documented functional justification and subject to NACS endorsement.

2.3 Legal targeting of the use of digital competencies in two HR processes: recruitment and training

35. **For HR processes, the primary legislation should specify the applicability of general digital competencies only in recruitment and training.** This clarification is important to avoid unintended spill-over into other HR processes regulated by the Administrative Code (in particular annual performance appraisal, promotion, mobility and disciplinary processes). By clearly delimiting the functional scope of use to recruitment (baseline gatekeeping) and training (targeted upskilling), the law would create legal certainty and prevent the digital competency framework from becoming an additional compliance burden. This approach also preserves the integrity of the digital competence model as a capability-building tool, rather than a sanctioning instrument, and simplifies the necessary legislative amendments by limiting the number of legal provisions that must be adjusted.

²¹ Connected Report accompanying Output 2 on the proposed ICT roles and ICT job classification system for the Romanian public administration, developed under the TSI project.

36. **In the case of state and territorial civil service positions, the general digital competencies should be assessed in the preliminary testing conducted during the national competition,** as opposed to the general competencies set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code, which are verified in the advanced testing. This will entail drafting/amending legal provisions in Annex No 8 and Annex No 10 to GEO No 57/2019 to the Administrative Code, by as the case may be:

- **Introducing, where appropriate, references to the general digital competencies (most notably, in the existing legal provisions that regulate preliminary testing).** This can be achieved by replacing the references to *theoretical IT knowledge* (which, currently, is a requirement for holding any civil service position that is verified in the preliminary testing) with references to selected general digital competencies at basic level. The list of selected general digital competencies tested in recruitment should be detailed in tertiary legislation (by order of the President of NACS). For the first years of implementation, it is unlikely for test batteries to be available to test candidates across all competencies in areas 1-5. A selection of relevant competencies to be tested in recruitment is already suggested in chapter 3 of this report. Provisions that fall within this type of legislative intervention include: Article 3(d), (dd) and (ee), Article 45(1)(c), Article 47(1) and (3), Article 64(5), and Article 67(1) of Annex No 10 to GEO No 57/2019 on the Administrative Code.
- **Adding in the legal provisions that include references to the general competencies, where appropriate,²² a more pinpointed reference to the general competencies** set out in Article 17(a) of Annex No 8 to GEO No 57/2019 on the Administrative Code (as it is the case for example for clarifying that general competencies are tested in the assessment center, but not the general digital competencies, which are tested in the preliminary testing phase of the recruitment system). Provisions that fall within this type of legislative intervention include: Article 19 and 20(1) of Annex No 8 to GEO No 57/2019 on the Administrative Code and Article 3(a) and (f), Article 52(2), and Article 53(1) of Annex No 10 to GEO No 57/2019 on the Administrative Code.

37. **The general digital competencies should be used in planning and conducting the professional development/training of civil servants, which necessitates the legal adjustments of the relevant legislation on training of public administration staff.** While in the recruitment process for civil servants only part of the general digital competency framework will be used,²³ in the professional development/training of civil servants the full breadth of the general digital competencies will be used (including the actual levels of complexity required for the different civil service positions), allowing for a targeted approach to developing digital competencies in the civil service. Using the general digital competencies to plan and carry out the professional development/training of civil servants also requires targeted adjustments in the legal framework.

38. **The assessment of digital competencies should not be conducted through the performance appraisal instrument, therefore the Administrative Code should be adjusted to delink the two processes.** Article 485¹ of the Administrative Code regulates the annual performance appraisal system, which is conducted on the basis of the general competency framework defined in Annex 8. Pursuant to Article 597(1)(i) of the Administrative Code, as introduced through GEO 191/2022, the provisions of Article 485¹ become applicable as of 1 January 2025 for the civil service positions covered by Article 385(1) and (2). To ensure coherence with the intended use of the general digital competency

²² There are cases of legal provisions which include references to the general competencies and which will not need to be amended, because they apply to both the general competencies set out in Article 17 of Annex No 8 to GEO No 57/2019 on the Administrative Code and the general digital competencies (e.g., Article 3(n), Article 8(1)(e) and Article 10(c) of Annex No 10 to GEO No 57/2019 on the Administrative Code).

²³ Only selected general digital competencies within the competency areas 1-5, at the basic level (A level) of complexity, are assessed in the recruitment process.

framework, it is recommended that general digital competencies are not integrated into the set of competencies evaluated as part of the annual performance appraisal process. The primary purpose of the digital competency framework is not sanctioning or performance scoring, but identifying gaps in digital skills to inform structured training and upskilling. Including them in the annual performance review framework risks driving check-the-box behavior and would undermine the value of the framework as a developmental tool.

39. **Consistent with this logic, the Administrative Code should be amended to clarify that training needs for general digital competencies are identified through the dedicated digital competency assessment process, not through annual performance appraisal.** In its current form, article 485¹ (7) of the Administrative Code envisages that training needs must be derived from the performance appraisal process. For digital competencies, training needs should instead be generated through a dedicated digital competency assessment process and ideally based on a dedicated TNA platform. This ensures that training recommendations are data-driven, targeted, and not derived from supervisory ratings in annual performance reviews. This adaptation would ensure the legal basis for INA and NACS to operationalize the digital competency assessment and training targeting through an appropriate process and with the right tools. This differentiation is essential to ensure that digital competencies contribute to capability building and continuous learning, not to punitive scoring, and is aligned with the recommendations under **Output 4** of the TSI project.

40. **Article 485¹ should therefore be amended to explicitly clarify that:**

- As an exception, general digital competencies are not assessed as part of the annual performance appraisal, and
- The testing of digital competencies will instead be based on a dedicated assessment tool (e.g. an assessment platform), outside the annual performance cycle. This will inform the identification of training priorities at an individual level.

41. **Finally, the template of the standardized job description, set out in item III of Annex No 10 to GEO No 57/2019 on the Administrative Code, should also be amended** to allow information on the general digital competencies and their levels of complexity required for each position to be filled in. Thus, the standardized job description should list the types of general digital competencies set out in the general digital competency framework and provide a column where information on the complexity level required for each competency will be filled (similar to the way in which the general competencies are currently reflected in the standardized job description). The standardized job description should not include the descriptors of the general digital competencies.

3. Updating the methodological framework for using digital competencies in HR processes

42. **This chapter presents the methodology for integrating the proposed general digital competency framework into the existing competency-based HR architecture.** The goal is to embed digital skills in a way that is fully coherent with the existing framework, not to create a parallel track. This chapter outlines how digital competencies can be introduced in a way that aligns with Romania's competency-based HR processes, where adjustments are needed, and what procedural updates will ensure that digital competencies become a natural, recognized part of the civil service career lifecycle.

43. **Romania's emerging competency-based HRM system provides the foundation on which the new digital competencies should be integrated and applied.** Romania's competency-based HRM system architecture for the civil service is established through Annex 8 of GEOGEO 57/2019 and operationalized through order of the President of NACS no. 332/2024 on the methodology for job analysis. This system was expanded recently to span almost the full HR lifecycle. Recruitment relies on competency-based tests and evaluation tools: starting 2025, performance management also includes the assessment of behaviors linked to the required competency levels, and promotion and mobility depend on demonstrating competencies at the required complexity levels. Training is meant to address competency gaps identified as part of the performance appraisal process. This architecture is still in gradual rollout and consolidation, and further evaluations are expected to inform future adjustments. In this context, digital competencies need to be integrated into the existing HRM system in a coherent and non-disruptive way. They should strengthen ongoing reforms, not create parallel processes. Their initial use should focus on the HR areas where they bring the highest added value with the lowest implementation risks: recruitment and training.

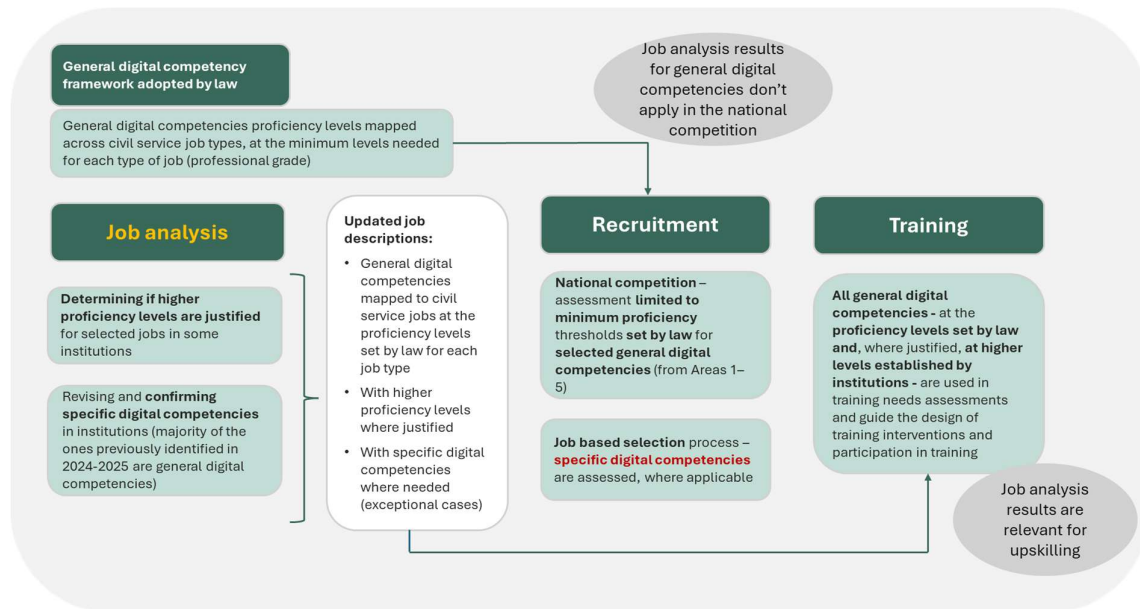
44. **The operationalization of digital competencies should also address gaps created by the current treatment of digital skills in the HRM system.** Today, most posts include only a generic "digital competence," which in most cases refers to ability to use Microsoft Office and had no clear proficiency levels²⁴. When this is compared with the proposed general digital competency framework, it becomes evident that several digital competencies currently treated as "specific" should in fact be reframed as general competencies required across most civil service roles. This requires a structured review of the outputs of existing job analysis processes. Job descriptions need to be updated so that digital requirements are correctly classified, consistently described, and legally anchored. Clarifying this alignment is essential for ensuring that institutions apply digital competencies in a coherent and standardized way.

45. **The proposed operationalization framework focuses on integrating digital competencies initially only into recruitment and training, the two HR processes where implementation is feasible immediately and where added value is highest.** For this, digital competencies also need to be integrated in the job analysis process, to ensure the basis for cases in which institutions might want to target higher proficiency levels in training. Figure 4 below summarizes this proposed approach, with details included in the sections below. Recruitment already uses competency-based tools, which makes it possible to incorporate digital competencies into vacancy profiles and assessment methodologies without major procedural changes. Training is covered through Output 4 under the TSI project, which discusses the training needs assessment process and the role of a digital skills assessment platform. Other HR processes - performance management, promotion, and mobility - are not covered in detail at this stage because the instruments needed to apply digital competencies in a developmental and career-progression context are also dependent on the digital skills assessment

²⁴ Based on the analysis of job descriptions conducted as part of Activity 1 under the TSI project, as reflected in *Output 1*.

tools that still need to be developed. Performance management, promotion and mobility require validated assessment tools, digital skills certification mechanisms and managerial capacity to distill the impact of employees' digital skills on their performance, or these areas are still under development. For these areas, the current chapter sets only the future direction of use, ensuring coherence with ongoing reforms while allowing early low-risk gains in recruitment and training.

Figure 4 Integration of general digital competencies into recruitment and training in the first phase of implementation of the general digital competencies



46. **As mentioned in the previous chapter, the legal framework itself should explicitly provide for this phased approach.** Clear provisions are needed to ensure that the integration of digital competencies into processes such as individual performance, promotion, and mobility will only occur once adequate tools and systems for assessment and certification are available, tested through pilots, and validated for consistent application across institutions.

47. **The integration of digital competencies into HR processes, as proposed in the following sections, should therefore follow the gradual implementation model proposed in Chapter 5.** During Phase 1 (years 1- 3), before the digital skills assessment platform, certification system and adapted testing instruments are operational, digital competencies should be used only in job analysis, recruitment (in a limited form) and training. Recruitment will benefit only from a partial integration, focusing exclusively on a small subset of minimum threshold competencies needed at entry into the civil service. Training, in turn, becomes the primary instrument for addressing all digital competencies and also higher proficiency needs identified through job analysis. Only in Phase 2, once the full digital assessment system is in place, will the complete set of general digital competencies and differentiated test profiles be integrated into national recruitment and the broader HR lifecycle. This progressive approach safeguards proportionality ensures fairness for candidates and allows institutions to build digital capability in a realistic and sustainable manner.

3.1 Integrating digital competencies into job analysis - ensuring evidence for higher digital proficiency requirements and/or additional specific digital competencies

48. **The objective of integrating general digital competencies into the job analysis process is to ensure that each institution can determine, based on evidence, whether certain jobs legitimately require proficiency levels above the minimum thresholds set by law.** Therefore, the results of job analysis will primarily inform internal decisions on competency profiles, workforce planning and training pathways, ensuring that development efforts are aligned with real institutional needs. For recruitment, however, the relevance of the job analysis process remains limited in Phase 1, because only the minimum proficiency threshold (A) in selected digital competencies should be tested during the national competition, and recruitment tests should not target higher-level requirements until the assessment tools are fully developed and deployed.

49. **For a simplified job analysis process, the recommended approach is that institutions should generally apply the minimum digital proficiency levels set by law, and depart from them only when justified by the nature of the job.** Output 2 proposed that the general Digital Competency Framework be adopted through primary legislation, with detailed descriptors issued through secondary legislation, and that the baseline proficiency levels for all civil service job categories be defined directly in law. This legal structure will allow institutions to apply the framework immediately and assign the minimum levels without additional analysis. However, some roles may legitimately require higher proficiency. Examples include positions in departments responsible for digital transformation (distinct from core ICT units), roles with significant data responsibilities in Public Policy Units or in some specialized core business units, or any function that operates advanced digital systems or produces more advanced digital-enabled insights. For such cases, institutions should conduct a simplified job-analysis review to confirm the need for a higher proficiency level and document the evidence supporting it. This approach ensures that advanced digital requirements are introduced only when warranted, remain proportionate to job duties, and maintain consistency across the civil service.

50. **In addition, the simplified job-analysis process is essential for reviewing the specific digital competencies currently listed in many job descriptions.** In practice, a large share of these so-called “specific” competencies are not genuinely job-specific: many correspond in substance to the general digital competencies that will be set by law, while others reflect the skills of the person currently occupying the post rather than the actual requirements of the job²⁵. For example, some positions list “computer programming” or other advanced digital skills as specific competencies even though the role has no mandate, tasks or outputs requiring such skills; these requirements persist simply because the incumbent happened to possess them. This is contrary to the legal principle that competencies must be determined for the job, not for the individual. The introduction of the general digital competency framework therefore creates a timely opportunity to remove inappropriate or inflated digital-specific competencies from job descriptions and replace them with the appropriate general digital competencies defined in the national framework. The simplified job analysis review will allow institutions to document which digital-specific competencies are still justified by the job’s actual tasks and to eliminate those that are not, ensuring that competency profiles will support future mobility, fairness and merit-based progression across the civil service.

51. **The job analysis process is already the legal foundation for determining specific competencies and for determining institutional needs in recruitment and promotion.** By law, job analysis is *“a process carried out on the basis of collecting information about the responsibilities and*

²⁵ Findings regarding the current application of specific digital competencies is included in *Output 1* developed under the TSI project, based on the analysis of a sample set of job descriptions.

*expected results of each position in the organizational structure, for the purpose of identifying its purpose, objectives, main tasks, and the competencies required.*²⁶ Under Annex 8 of GEOGEO 57/2019, institutions must complete a job analysis before initiating recruitment or promotion procedures, including for posts that are to be transformed or reclassified. The methodological process is described in the order of the President of NACS no. 332/2024 on the methodology for job analysis. The results of this analysis are then used to update the job description and become the reference point for all HR processes linked to that position. For this reason, it is essential that the job analysis phase incorporates elements relevant for the implementation of the proposed general digital competency framework. This integration should occur within the structure of the existing methodology, ensuring that digital requirements are captured accurately without altering the substance or legal sequence of the current process.

52. **First, to ensure expert matter knowledge in the process, the working group set up for job analysis within each institution should be expanded to include digital expertise.** Under Annex 8 of GEO 57/2019, articles 26-28, each public authority and institution is responsible for carrying out the job analysis for its own civil service positions. The analysis is performed by an institutional working group established in each institution, which collects information on the job's purpose, activities, performance objectives, risks, tools and equipment, collaboration patterns and hierarchical relations. This group is responsible for documenting results in the Job Analysis Form and the analysis report, which serve as the basis for determining general and specific competencies. Institutions should expand the existing working group by including digital expertise from the IT department in each institution. This addition ensures that the analysis of activities, tools and competency needs reflects the digital dimensions of modern public administration, while the legal structure and workflow of the job-analysis process remain broadly unchanged. The *working group order addendum* should reference the original OPANFP 332/2024, listing the new members by role. The group should also clearly nominate the HR person responsible for the digital upskilling needs and training participation, who will have an oversight and reporting role also as part of the learning and development HR process.

53. **The scope of the working group for job analysis at institutional level should be clearly linked to a two-fold purpose:**

- First, to determine whether any position requires a higher proficiency level in the general digital competencies than the minimum levels set by law for the various civil service jobs;
- Second, to identify whether specific digital competencies are needed for certain roles, based on the actual digital tasks and tools used in those positions and revising current specific digital competencies.

Together, these two functions ensure that each job profile accurately reflects both the baseline digital expectations and any additional, job-specific digital requirements.

A. *Determining higher level of proficiency for some general digital competencies for some jobs, based on evidence*

54. **In terms of process, to avoid reopening the job analysis for all positions, institutions should rely on a targeted checklist to identify only those roles that may require higher-than-baseline digital proficiency.** In these cases, the working group should review departmental mandates and current work processes. If a unit performs any of the tasks/similar to the ones mentioned in the list below, it may warrant job-level analysis to confirm whether higher digital proficiency might be needed.

55. **The task-based checklist below is meant to be applied only to non-ICT structures.** For ICT structures the dedicated ICT roles are meant to be directly applied, as proposed in the *Connected*

²⁶ Art. 3 of Annex 10 to the Administrative Code – Government Emergency Ordinance no. 57/2019.

Report on the proposed ICT roles and ICT job classification, accompanying Output 2 developed under the TSI project:

- complex use of data, including analysis, modelling, or management of datasets beyond routine data entry and data processing;
- operation of specialized digital platforms, such as case-management systems, procurement or inspection platforms, or advanced regulatory information systems;
- use of digital tools for decision-making, such as design and updating of dashboards, analytics interfaces, forecasting instruments, or visualization tools;
- digital workflow design or optimization, including contributions to process automation, digitalization of services, or functional specifications for IT systems;
- responsibility for data quality or data governance, including verification, validation, or stewardship roles linked to institutional databases;
- digital service delivery or interaction, such as managing online interfaces, portals, or citizen-facing digital communication channels;
- coordination or design of digital transformation initiatives, where the role requires higher digital awareness to guide or oversee technology-enabled change.

56. **The presence of one or more tasks from this list does not automatically mean that positions in the respective department require Level B or C (intermediate or advanced digital proficiency).** If a department meets one or more of these conditions, the working group should perform a targeted job review for the relevant positions to determine whether a higher-than-baseline digital proficiency level or specific digital competencies are justified. Many of these tasks can still be carried out at the minimum levels defined in the framework. The purpose of the checklist is only to flag departments where the working group should verify, on a case-by-case basis, whether the minimum proficiency level remains appropriate. A higher level should be assigned only when the job's tasks genuinely exceed the digital requirements envisaged for the general civil-service population.

57. **As a follow-up to the departmental functional screening, the working group should fill in in the job analysis form a short "Digital Tasks" section for the positions identified as potentially requiring more than the minimum digital proficiency.** This does not mean reopening the full job analysis for all roles. Instead, the group examines only those positions flagged earlier and reviews the general digital competencies to determine which ones apply and at what level. The section can be added as a simple table in the job analysis form. The group begins by listing the job's digital tasks - any duty involving digital tools, platforms, data or AI-enabled functions. Oftentimes tasks in job descriptions imply digital aspects which are not explicitly mentioned, so trigger questions could be used, such as: Does the job use specialized platforms, dashboards or structured datasets? Does it verify information online? Does it support digital processes or interact with digital services? For each digital task identified, the group maps it to the relevant general digital competencies. Finally, the group assigns the proficiency level (A, B or C) by looking at the demands of the task, only for the digital competencies that are required for the respective tasks, not across all digital competencies. This targeted process ensures that higher proficiency levels are assigned only where the job's actual tasks justify them, while maintaining consistency across the institution.

58. **Situations in which a job requires a digital competence proficiency level different from the standard one set by law should be justified only by a clear and demonstrable need.** The examples below illustrate boundary cases where the duties of a job exceed the usual functional complexity and require higher-level digital competencies to ensure effective performance.

Box 1 Example for when a higher level of proficiency is not needed (hypothetical)

Example 1: When a general digital competence at higher proficiency level is not justified

Based on the review of departmental responsibilities, the Communication Department appears to have responsibilities that fall under various digital criteria under the list.

The working group analyses the job description for the main jobs contributing to the fulfilment of the mandate of that department. In that case, the job of Principal-level Counsellor in that department includes as the main digitally related responsibility: “To update and maintain institutional announcements and public information on the institution’s website, in accordance with approved procedures and visual identity standards.” The working group performs a competence coverage check and confirms that it falls under the general digital competence area, specifically 2.1 “Communicating through digital technologies” and 3.1 “Developing and re-using digital content.”

The next step is to determine if required competencies go beyond the standard minimum threshold. For this job type, the standard minimum threshold at the principal level is proposed to be Level B²⁷, which ensures sufficient autonomy to perform these tasks. The duty does not require system design, customization, or digital strategy development, but rather the autonomous application of established templates and institutional procedures.

Hence, no higher-level of proficiency is needed.

This represents a “no adjustment” case - the task requires Level B competence, but that level is already part of the minimum standard for the position.

Box 2 Example for when a higher level of proficiency is needed (hypothetical)

Example 2: When a general digital competence at higher proficiency level is justified

Based on the review of the departmental responsibilities it appears that the Directorate for Institutional Monitoring and Reporting has more digitally intense tasks. An Assistant Counsellor job is in that department. A typical job description includes the following task:

“Centralizes and interprets data submitted by subordinate units, prepares statistical summaries and reports on institutional objectives, using digital tools for data processing and graphical representation.” This duty is essential for effective job performance.

The working group acknowledges that the task requires the use of digital data analysis tools (e.g., pivot tables, complex formulas, graphical dashboards, cross-data correlations). This exceeds routine operational use and involves critical thinking and autonomy in data interpretation. The competence falls under the general digital competencies 1.1 “Searching and accessing data” and 1.2 “Evaluating and analysing digital information.”

Based on the minimum level set for all assistant counsellors, the standard threshold for these competencies at the Assistant level is Level A. However, this duty requires higher-order digital reasoning, data integration, and evidence-based interpretation - characteristics of Level B.

Hence, the institution could justify establishing Level B as the minimum digital competence threshold for this job. This requirement should be explicitly stated in the job description.

59. Typical jobs situations when higher levels of proficiency in general digital competencies could be needed include cases such as:

- *Cross-domain jobs involving digital components within non-digital specialties.* These are posts where professional expertise in a non-digital domain - such as public procurement - must be

²⁷ If this remains the level adopted by legislation.

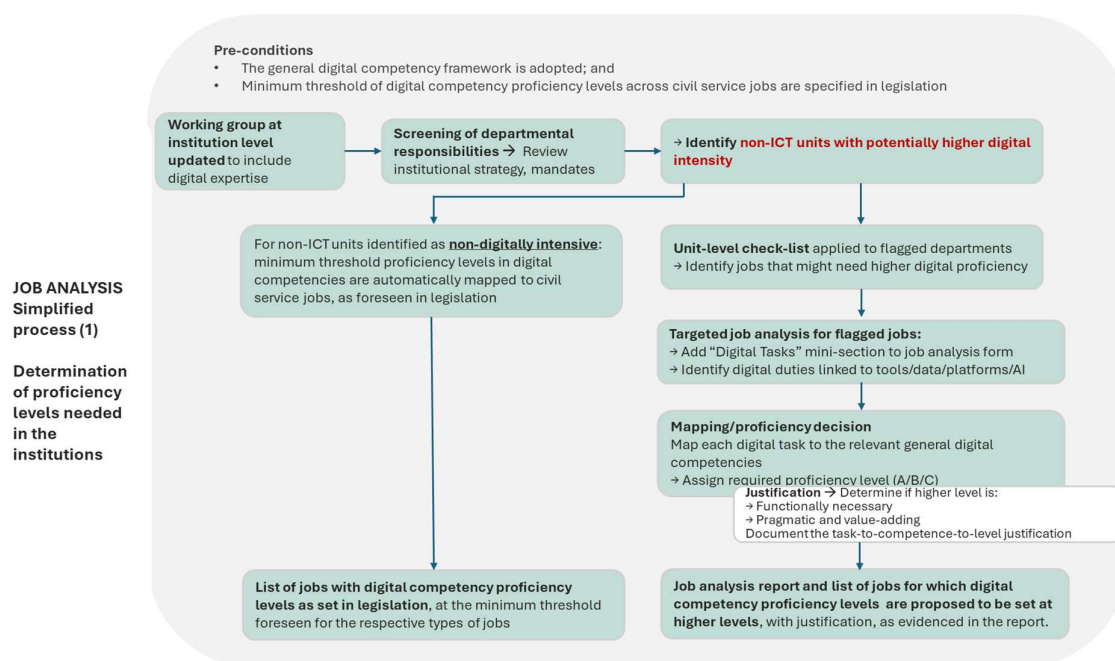
combined with advanced digital competence to manage procurement processes for digital infrastructure, software, or IT equipment.

- For instance, a Principal Counsellor position responsible mainly for IT-related procurement may require Level C in 1.3 (Managing Data, Information and Digital Content) and Level B in 5.1 (Managing Digital Devices, including identifying and managing technical problems) to analyse complex technical bids, assess hardware or software specifications, and maintain structured vendor databases.
- *Jobs within units responsible for digital transformation.* These are jobs whose core mission includes the development, coordination, or digital transformation of public services.
 - For example, a Senior Counsellor job in a Digital Transformation Unit (but which is not the ICT department) may coordinate the implementation of digital public policies and assess the compliance of e-services with accessibility and interoperability standards. Such a position could require Level C in 3.2 (Contributing to effective digital public services) to evaluate and monitor the quality of citizen-facing digital services, beyond the standard Level B threshold.
- Administrative jobs that include technically demanding digital tasks. These are posts where digital activities are ancillary but require advanced digital data management.
 - For example, a Principal Legal Counsellor position that includes maintaining and querying a complex regulatory database, performing multi-criteria searches, and generating automated compliance reports may require Level C in 1.3 (Managing Data, Information and Digital Content), above the standard Level B threshold.

60. **The decision to establish a higher-level digital threshold should be guided by functional necessity and institutional pragmatism.** Functional necessity refers to the existence of at least one essential task in the job description that cannot be effectively performed without the higher-level competence. Institutional pragmatism means the institution should assign higher requirements only when they add measurable value. Once the justification for a higher-level digital competence is confirmed based on functional necessity and institutional pragmatism, the decision must be formalized through a documented and standardized process.

61. **Determining whether a higher-level general digital competence is justified requires distinguishing it clearly from specific digital skills.** A higher-level general competence (e.g., information management at Level B) is justified when the role involves complex use of data, communication, or digital decision-making that cannot be achieved through routine skills alone. Conversely, if the role requires specialized software use or system configuration, such skills should be treated as *specific digital competencies*, not as a higher threshold of general competence. Therefore, the next step in the process would be to also determine applicability of specific digital competencies.

Figure 5 Simplified job analysis to determine adequate digital competency proficiency levels for civil service jobs in institutions (step 1)



B. Determining specific digital competencies only where needed, on top of the general digital competencies, and revising the list of specific competencies previously identified (before the adoption of the general digital competency framework)

62. It is important to clearly distinguish between general and specific digital competencies to ensure that job profiles remain accurate, proportionate, and consistent, and to avoid inflating competency requirements in ways that could hinder recruitment, mobility, or career progression. While specific digital competencies are directly linked to the core mission and primary responsibilities of a post, general digital competencies typically relate to transversal or secondary tasks that enable the effective performance of those responsibilities. To facilitate consistent institutional decisions, the table below summarizes the key distinctions between general digital competencies - required, in varying degrees, across all civil service positions - and specific digital competencies, which apply only to some roles. This differentiation supports institutions in determining whether a higher-level digital requirement should be treated as a general competence at a higher proficiency level (to be listed under general competencies in the job description) or if in reality it is a specialized digital skill (to be defined as a role-specific requirement).

Table 3 Key differences between general and specific digital competencies

Criterion	General digital competencies	Specific digital competencies
Applicability	Required, in varying degrees, for all civil servants to perform effectively in modern administrative contexts. Example: <i>on cybersecurity</i> — recognizing threats and applying safe digital practices in all the digital tasks.	Relevant only for technical or specialized roles where digital technology forms the core of the job. Example: developing and maintaining cybersecurity protection government web platforms.

Relation to digital technology	Technology is a means to perform tasks, communicate, and make decisions. Example: <i>Using automation tools</i> to prepare reports or administrative acts.	Technology is the core purpose of the role - creating, maintaining, or securing systems. Example: Designing and programming automation systems that others use to prepare reports.
Career trajectory	Evolves with seniority - from operational use to managerial and strategic digital governance. Example: <i>Digital Communication</i> - from writing emails to managing online reputation.	Deepens within a narrow technical domain, leading to higher specialization. Example: <i>Cybersecurity</i> - from checking settings to conducting testing.
Mobility	Ensures broad mobility across functions - transferable to multiple administrative areas. Example: Data management skills applicable in HR, procurement, or policy departments across different ministries.	Enables limited mobility within similar technical roles. Example: A statistician moving to another similar role in a different institution, a cybersecurity expert moving from an institution with cybersecurity mandate to another institution, on the same role.
Training pathway	Developed through standard institutional training or guided workplace learning. Example: "Data Analysis with Excel and Power BI."	Requires specialized certification or intensive industry-recognized training – for example in cybersecurity, a wide range of accredited certifications and advanced training pathways already exist, covering areas such as network security, incident response, risk management, and digital forensics.

63. **The assessment of specific digital competencies should be undertaken only for non-ICT jobs, meaning positions located outside the institution's core ICT department.** For ICT units, the proposed ICT roles are recommended to be applied, as these positions already have detailed and specialized digital competency requirements already defined in the *Report with recommendations on the proposed ICT roles and ICT job classification for the Romanian public administration - Connected report accompanying Output 2* under the TSI project. Those jobs should be treated as specialized jobs and should benefit from a different HRM approach, including recruitment, salary setting and job classification, as proposed in Output 2. These ICT-specific profiles already include the full set of technical digital skills relevant for system administration, software development, cybersecurity, architecture, and infrastructure roles. The focus of the job analysis process should instead be on identifying specialized digital needs in functional units - policy, inspection, finance, HR, planning, service delivery, where digital tasks exist and general digital competencies might not reflect certain specificities.

64. **For non-ICT departments, the working group will need to review the list of specific digital competencies previously defined for each job, which were established before the development of the general digital competency framework.** This review serves to verify whether any of these older requirements are still valid. *In most cases, the expectation is that earlier "specific digital competencies" will now fall under the general digital framework and will no longer be treated as job-unique requirements. In other situations, the issue will not be the existence of a job-specific digital skill, but rather the need to assign a higher proficiency level for certain general digital competencies, depending on the actual tasks performed in that unit.* The working group should therefore retain as specific competencies only those digital skills that genuinely reflect specialized, job-exclusive tasks. All other

digital requirements should be considered as covered by the general digital competency structure or reflected through an adjusted proficiency level.

65. **In practice, the pilot process conducted under the TSI project showed that most non-ICT departments do not require separate, job-exclusive digital competencies (specific digital competencies). Instead, some jobs might require a higher proficiency level within one or more general digital competencies,** reflecting the complexity or frequency of digital tasks in a specific functional area. The proposed framework provides full flexibility for institutions to assign these higher proficiency levels based on evidence gathered from job analysis. This means that a role may not have any “specific digital skill” but may still legitimately require an advanced level in data literacy, stronger competency in digital content creation, or a higher proficiency in managing digital workflows, depending on the operational demands of that unit. This approach ensures consistency across the civil service while allowing individual institutions to calibrate digital proficiency levels to real job needs.

66. **For example, for an Assistant Counsellor role, the recommended minimum digital proficiency level is A across general digital competencies but could be mapped to higher level (B) in certain general digital competencies if justified, without necessitating specific digital skills.** The minimum proficiency level for this job type is recommended to be set at A for all assistant counsellors, reflecting the typical scope of routine administrative and operational tasks performed at this grade. However, institutions retain full flexibility to assign a higher proficiency level (B for example) where this is justified by evidence from job analysis. In such cases, elevating the proficiency level does not create a new “specific” digital competency; it simply recognises that the same job role may require more advanced capability in searching, evaluating, managing, or producing digital content, or in using automation tools, depending on the institutional context. For example, an Assistant Counsellor working in a legal or regulatory affairs department needs to handle complex legal documents, consolidating amendments, verifying digital references, and preparing case files for decision-making bodies. Although the position is formally at Assistant Counsellor level, the digital work involved (such as retrieving legislation and case law from multiple digital sources (1.1), verifying the accuracy and relevance of legal citations or digital evidence (1.2), managing structured digital files with strict version-control and traceability requirements (1.3), and integrating excerpts, templates and annexes into standardized legal documents (3.1)) may justify requiring Level B proficiency. In this case, the higher proficiency level reflects the complexity of tasks allocated within the functional domain, not the existence of a distinct or job-specific digital competency. No specific digital competency is expected to be formulated in this situation.

67. **Specific digital competencies should be defined only in situations where the proficiency levels of the general digital competencies do not fully capture the digital requirements of a specialized role.** In these cases, the digital capability needed goes beyond transversal digital literacy and relies on professional knowledge combined with specialized digital methods. For example, a statistician working in the National Institute of Statistics or an analyst in the Labor Inspection may need the ability to design, estimate and interpret statistical models using digital analytical tools in order to understand labor-market patterns, non-compliance risks or social-assistance outcomes. This type of digital modelling cannot be expressed simply through higher proficiency levels in searching, evaluating or managing data, as it requires methodological expertise and job-exclusive digital techniques. As such, it represents a relevant specific digital competency that applies only to a small group of analytical roles and should not be generalized across the wider civil service. In the UK context, for example, the role profile for a Geographic Analyst within the Government Analysis Function explicitly emphasizes geospatial data analysis, spatial modelling and the use of specialist software to support decision-making-skills that go beyond general digital competencies²⁸. This role is grouped under the analysis profession, not under the ICT profession. This illustrates the principle that certain digital skills should

²⁸ Details are available at: <https://analysisfunction.civilservice.gov.uk/careers/role-profiles-and-career-pathways/>.

be recognized as specific, job-family-unique competencies, framed only for roles whose digital tasks cannot be adequately captured through general proficiency levels.

68. The list below includes examples of cases in which potential “specific digital competencies” are not correctly identified:

→ Examples of competencies that belong to the general framework and which should be mapped to Areas 1- 5, not treated as “specific”:

- “Microsoft Office proficiency” (Word, Excel, PowerPoint).
 - It is covered in Area 3.1 and 5.2, no need to refer to specific brands.
- “Ability to search for information on the internet.”
 - It is covered in Area 1.1 and 1.2.
- “Ability to use email, Teams, Zoom.”
 - It is covered in Area 2.1 and 2.2.
- “Basic data entry in digital systems.”
 - It is covered in Area 1.3.
- “Using digital signatures.”
 - It is covered in Area 4.2.

→ Examples of competencies reflecting the *incumbent’s* personal skills - these occur when a person has a skill and it was incorrectly added to the job even if the job tasks do not require such skill:

- “Programming in Python / Java / SQL” for a non-IT policy role.
- “Advanced website coding” for a communications assistant.
- “Graphic design software (Photoshop)” for a legal adviser with no content-creation mandate.

→ Examples of vague or inflated digital requirements that provide no professional clarity and inflate barriers to mobility:

- “Very good digital skills.”
- “Advanced computer knowledge.”
- “High-level IT abilities.”
- “Strong command of technology.”
- “Experience working with databases” (without specifying the system or task).

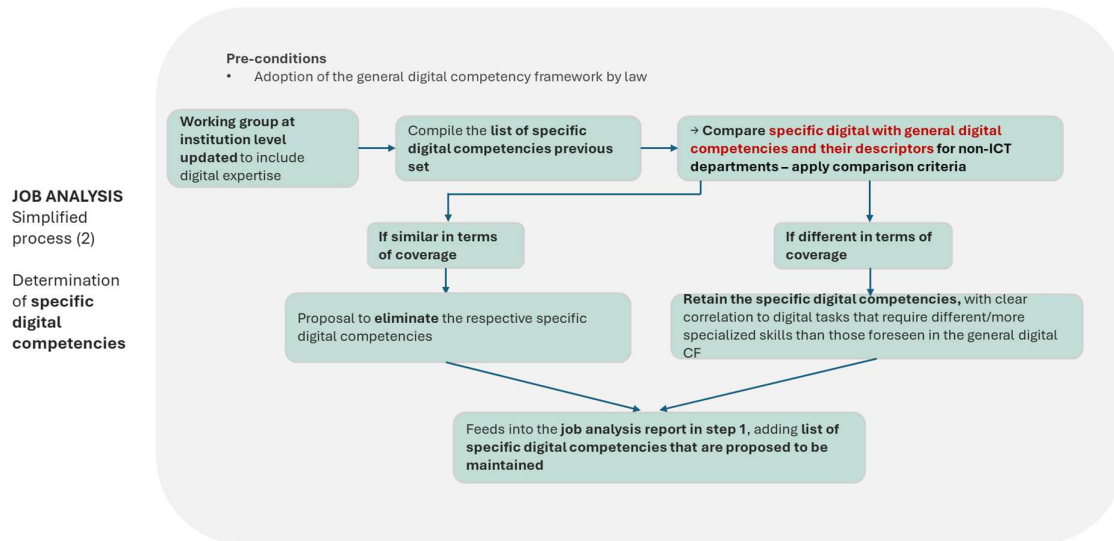
→ Examples of requirements that duplicate ICT departmental competencies:

- Network administration
- System architecture
- Server configuration
- Software development
- Managing cyber defense systems.

69. Once identified, the general digital competencies at higher proficiency levels and the specific digital competencies should be submitted to NACS for endorsement just like any other specific competencies. According to art. 30 in Annex 8 of GEO 57/2019, as a result of the job analysis, institutions must submit to NACS a complete approval package consisting of: (a) a formal request letter for endorsement issued by the head of the institution, (b) the job-analysis report detailing the results of the analysis, and (c) the official approval document through which the head of the institution validates the general and specific competencies established for each civil service position. Together, these documents allow NACS to verify that competency requirements are legally grounded and evidence-based. NACS might respond with observations or require adjustments; for example, NACS might check that a so-called “specific” competency is not actually too generic (if it is generic, NACS would expect it to be covered by the general framework). Digital competencies being new, NACS

should check that specific digital competencies do not duplicate the general ones in an artificial manner or that they are not set arbitrarily.

Figure 6 Simplified job analysis to determine if any of the specific digital competencies identified prior to the adoption of the digital competency framework are maintained (step 2)



70. **As a result of the job analysis process, each HR department should update the standardized job description to reflect the final digital competency requirements.** This includes inserting the general digital competencies with their corresponding proficiency levels - either the minimum levels established in legislation or the higher levels justified through the targeted job-analysis process. In addition, specific digital competencies should be included only when the analysis clearly demonstrates that the job contains specialized, non-transversal digital tasks that cannot be captured through general competencies alone. By updating the job description in this structured way, institutions ensure consistency, transparency and alignment with the national digital competency framework.

3.2 Integrating digital competencies into recruitment

Integration of the general digital competency framework in recruitment during Phase 1 of implementation (years 1-3)

71. **The integration of general digital competencies into recruitment should start from the mechanisms already in place in Romania's national recruitment system for civil servants.** The national competition is the first phase of the recruitment process in the Romanian central and territorial civil service. The second phase is the job-based selection process conducted by institutions, in which specific competencies are tested. Under the current national competition framework regulated by the Administrative Code, candidates take standardized written tests of basic IT knowledge²⁹, and this knowledge can also be recognized formally through accepted certificates. This creates a practical and cost-efficient foundation for incorporating general digital competencies. The goal is not to introduce an entirely new digital testing architecture but to embed the minimum digital proficiency levels set by legislation into the existing recruitment flow. As proposed in Output 2, these

²⁹ In accordance with art. 47 para. 3 of Annex 10 to the Administrative Code, the theoretical knowledge in the field of information technology is assessed at the "beginner user" level, similar to ECDL or ICDL certification levels.

minimum proficiency levels should be mandated by primary and secondary legislation for all civil-service categories.

72. **The recruitment stage (national competition) should focus exclusively on the digital competencies that are critical for effective job performance at entry.** General digital competencies cover a broad set of abilities, but only a subset is necessary at the moment of hiring. Recruitment should therefore verify only the competencies that are indispensable for a new civil servant to operate securely, navigate information, and contribute to basic digital workflows from day one. Testing the full digital framework at entry would be disproportionate and could create unjustified barriers to hiring, especially for junior roles. Moreover, significant parts of the digital competency framework - such as complex data analysis, digital collaboration at scale, or digital problem-solving - should be the focus of development, assessment and upskilling after induction, once the employee has acquired the institutional context, tools, and workflows. This approach aligns with principles of merit-based recruitment, proportionality, and fairness, and reduces operational costs for NACS by limiting the scope of adaptation to the current examination system.

73. **Consultations with institutions also confirmed that only a limited subset of general digital competencies is appropriate to test at entry into the civil service, while the rest should be developed once the employee is in post.** During the project's co-design process with the HR working group, a needs-assessment exercise was conducted to determine which digital competencies realistically belong at the point of entry to the civil service. Institutions consistently highlighted that many of the general digital competencies that are needed in the civil service are expected to be developed on-the-job, for example in areas related to data interpretation, cybersecurity or digital public services. The majority of HR working group members supported the idea that some of the general digital competencies should not be required immediately upon hiring and would be more appropriate for development once the employee is in post. Competencies such as basic information and data literacy or digital communication emerged across these consultations as essential for entry-level performance. These competencies mirror broadly the types of knowledge already verified in the national competition, meaning integration requires incremental adjustments rather than redesign.

74. **Pilot-phase consultations also confirmed that, although digital expectations vary across job types, entry-level testing should focus only on a minimum digital proficiency threshold applicable to all civil-service positions.** Institutions recognized that roles in areas such as monitoring or policy analysis use digital tools more intensively than purely administrative entry-level posts, while jobs in communication, service delivery, or planning rely more on digital communication or information-management practices. However, these functional differences do **not** justify different digital tests at recruitment. Entry testing should remain limited to a common baseline - consistent with international practice, including EU recently updated EPSO AD competitions, where all candidates sit the same digital-literacy assessment regardless of their future assignment³⁰. This approach ensures proportionality, avoids over-testing candidates for roles that do not require higher digital proficiency at entry, and keeps the recruitment system cost-efficient and aligned with actual administrative needs.

75. **Therefore, at the stage of national recruitment to the civil service, only the minimum proficiency level corresponding to the debutant rank should be tested, and only for a limited number of selected competencies drawn from Areas 1 - 5 of the general digital competency framework.** This approach ensures that entry testing remains proportional, feasible and aligned with current administrative practice, where existing IT component tests of the national competition already verify basic digital literacy (through knowledge-based tests).

76. **This staged and realistic approach creates a smooth transition from the current IT testing model to a DigComp-aligned recruitment system without imposing excessive burdens on NACS or candidates.** Focusing on Areas 1-5 also reflects the core DigComp domains of information and data

³⁰ More information available at: <https://eu-careers.europa.eu/en/administrators-ad-generalists>.

literacy, digital communication and collaboration, digital content creation, digital safety, and problem-solving – and this allows Romania to adopt a solid structure while avoiding an unrealistic expansion of entry requirements. Competencies in these areas represent the essential user-level digital skills needed for effective performance from day one in any public administration job, regardless of sector or specialty.

77. **In the table below an initial set of general digital competencies are proposed for testing in the national competition.** Out of the 14 competencies defined in Areas 1-5, only 8 are proposed for testing at recruitment, meaning that less than 40% of the entire 22 included in the competency framework would be assessed at entry, and only at the minimum proficiency level defined in the legislation.

Table 4 Proposed set of general digital competencies that could be tested in recruitment as part of the national competition

Competency area	Number	Competency title	Tested in recruitment
1. Digital literacy in public administration	1.1	Searching and accessing data, information and digital content	☒
	1.2	Evaluating data, information and digital content	☒
	1.3	Managing data, information and digital content	☒
2. Digital communication and collaboration	2.1	Communicating, interacting and fostering citizen and businesses participation through digital technologies	☒
	2.2	Sharing and collaborating in digital teams in intra and interinstitutional contexts	
	2.3	Ensuring digital integrity and accountability in public administration	
3. Digital content and digital public services	3.1	Developing, integrating and re-using digital content	☒
	3.2	Delivering and contributing to digital public services	
	3.3	Ensuring compliance with digital regulatory frameworks and standards	☒
4. Safe, responsible and sustainable use of resources	4.1	Protecting devices and infrastructure	
	4.2	Managing digital identities and protecting personal data and privacy	☒

	4.3	Promoting healthy and sustainable digital practices	
5. Problem-solving through digital tools	5.1	Managing digital devices, including identifying and managing technical problems	☒
	5.2	Using automation tools	
6. Digital transformation in public administration	6.1	Contributing to digital transformation in public administration, driving innovation and improvement	
	6.2	Developing digital competence in the workplace	
	6.3	AI Literacy in public administration	
7. Digital leadership and governance in the public administration	7.1	Managing performance and operations	
	7.2	Leading team development in the digital environment	
	7.3	Driving and leading innovation and digital transformation	
	7.4	Ensuring responsible digital governance and cybersecurity	
	7.5	Using digital technologies for anticipatory and strategic thinking	

78. **For general digital competences where the required proficiency level is set higher than the minimum - either by law or through institutional justification in the job-analysis phase - these requirements will not be tested during the first implementation phase (Years 1-3).** Until a dedicated digital-skills assessment platform is developed and aligned with proposed digital competency framework for the public administration, higher proficiency levels should be addressed exclusively through institutional training and upskilling programs. This ensures that civil servants are not assessed on competencies for which the system has not yet built the necessary evaluation instruments and maintains fairness for candidates applying under the national competition framework. Once the digital-skills platform becomes operational, higher-level general digital competencies will gradually be integrated into the national competition in a proportionate and evidence-based manner, allowing institutions to verify both the minimum and any legally justified higher digital proficiency levels through standardized tools.

79. **For specific digital competencies - those that institutions retain only in exceptional and fully justified cases - their assessment should continue to fall under Phase 2 of the recruitment process, the job-based selection stage carried out by each institution.** Since specific digital competencies are job-unique and cannot be standardized across the entire civil service, they are not included in the national competition and should be evaluated through tailored tests, practical exercises, or other selection instruments relevant to the role. Institutions should continue to accept valid certificates,

diplomas or recognized digital qualifications as proof of proficiency, consistent with the approach outlined in Chapter 4 of this report. This ensures a consistent separation of the national competition (Phase 1, testing general digital competencies) from the institutional selection stage (Phase 2, testing job-specific digital competencies).

Perspectives for Phase 2 of implementation of the general digital competency framework in recruitment

80. **Once the digital skills assessment platform, the new training modules and the consolidated recognition and certification system for digital competencies are fully operationalized, the digital competency framework could be fully applied in the recruitment process.** In this second phase of implementation, institutions will be able to test not only the minimum proficiency levels required for debutant positions, but also the higher digital thresholds defined by law or justified through institutional job analysis. This represents an important development compared to Phase 1, which remains limited to testing a small subset of baseline competencies. In Phase 2, test batteries used in the national competition should cover the entire digital competency framework and should be differentiated by job types, reflecting the distinct digital expectations across assistant, principal, senior, managerial and director-level roles. Examples are included in **Annex 2**.

81. **In parallel, specific digital competencies, retained only in fully justified, job-exclusive cases, should continue to be assessed at the institutional selection stage (Phase 2 of recruitment).** Because specific digital competencies vary across roles and cannot be standardized for the national competition, they should continue to be evaluated through tailored tools such as practical exercises, portfolio reviews, software-specific tasks, or scenario-based assessments aligned with the job description. In this phase, institutions should continue to recognize valid certificates, diplomas and accredited qualifications as supporting evidence of proficiency, in line with the guidance provided in Chapter 4.

3.3 Performance management

82. **The annual performance management cycle should retain its competency-based architecture, but the digital competencies should not be integrated during the first phase (Phase 1) of implementation.** This sequencing is essential because performance appraisal must assess only those competencies for which employees have had a fair opportunity to acquire and practice the required proficiency. In the early years of implementation, neither the digital skills assessment platform nor the structured training modules and certification pathways will be fully in place. Introducing digital competencies into performance evaluation at this stage would therefore create risks of unfair assessment, inconsistent application across institutions and possible negative incentives for both managers and staff. In addition, managers currently lack both the capacity and the methodological tools to evaluate how digital competencies contribute to job performance in a reliable and objective way. For these reasons, Phase 1 focuses on building the foundational elements - job analysis, recruitment of minimum digital thresholds and large-scale training, so that digital competencies can later be incorporated into performance management in a credible, evidence-based and development-focused manner once the full support system is operational.

83. **Furthermore, in Phase 1 the current performance management system in the public administration should be capacitated to ensure the conditions necessary for a forward-looking and developmental use of competencies.** Although the proposed general digital competency framework is designed to help identify the competencies needed to achieve future performance objectives, the current regulatory and procedural framework limits competency evaluation in functioning as a tool for anticipating role requirements or supporting meaningful professional development. In practice, two main systemic problems undermine the validity and usefulness of competency assessment: (1) the

high stakes attached to competency ratings, which directly influence bonuses, salary increases and promotions, encouraging managers to inflate scores and turning the process into a defensive, formalistic exercise; and (2) the distorted interpretation of the 1-5 rating scale, where anything below 4.5 is informally treated as underperformance, leading to rating inflation (over 95% of civil servants score above 4.51) and eliminating meaningful differentiation between capability levels. Under these conditions, the general digital competencies cannot yet be integrated into performance evaluation in a way that genuinely helps employees and managers identify future competency needs.

Integration of general digital competencies into performance management in Phase 2

84. **In Phase 2 of implementation, the general digital competency framework should be incorporated into performance management exclusively as a diagnostic tool to inform individual development, not as a criterion for summative scoring or annual performance ratings.** This approach ensures that digital competencies will be used constructively, helping supervisors and employees to identify strengths, gaps and priority areas for upskilling, without creating punitive or high-stakes consequences during the transition to a digitally enabled administration. Supervisors will continue to evaluate work results and observable behaviors using the general competencies, but references to digital competencies should be used solely to map developmental needs. The intention is to support a structured dialogue on digital capability within the annual appraisal discussion, guiding employees toward relevant training pathways and institutional programs.

85. **In terms of process for Phase 2, the integration of digital competencies into performance management requires reframing competency evaluation as a development-oriented process anchored in future performance expectations.** To function effectively, digital competency assessment should apply the same two complementary instances that underpin general competency evaluation:

- *retrospective evaluation, which examines the competencies demonstrated in achieving past objectives and provides an accurate picture of the employee's current capability; and*
- *prospective evaluation, which determines the competencies that will be required to meet future objectives shaped by institutional priorities and ongoing digital transformation.*

This distinction is essential: switching from a retrospective to a prospective benchmark may lead to different competency judgments. An employee who appears fully competent when assessed against past tasks may be insufficiently prepared when assessed against next year's performance requirements. In other words, competency levels are meaningful only in relation to the performance standard used as a reference.

86. **In performance evaluation, civil servants and managers should continue to rate only the general competencies, while using the digital-skills evidence to understand the digital behaviors embedded in those competencies.** The mapping developed under **Output 2** already shows the correlation between the general competency framework already in place and the proposed general digital competencies. That mapping can show how each general competency is linked to relevant digital manifestations that matter for future performance. During the evaluation, the manager and civil servant should analyze how the general competencies depend also on digital implications - for example, using workflow tools for *Planning and organizing*, or managing shared digital information flows for *Collaboration*. The rating itself remains strictly on the general competency, with any digital development need reflected as part of the overall development gap. In this way, digital competencies inform performance discussions, but are not scored in the performance framework, ensuring consistency, clarity and alignment with the existing rating structure.

87. **In Phase 2, a dedicated 'Digital Development Plan' block could be appended to the performance evaluation form** in order to register training needs (and never allocate scores) as regards the proficiency level for digital competencies. The supervisor should mention the possible training pathway; nevertheless, these observations should feed only into the developmental narrative and do not alter the quantitative appraisal outcome. The documentation should mention (i) the learning gaps/needs, and (ii) the agreed learning actions, such as participation in INA/other training providers

courses or guided peer-learning exercises, to be completed in the forthcoming appraisal period. No numeric rating is assigned; the section functions as a qualitative needs-analysis tool. The sole scope of this step is to identify the development needs and to take actions at institutional level. At least one developmental objective in every performance agreement should target the acquisition or applied use of a digital skill. Such objectives should be phrased in outcome terms, for example, “Complete accredited training on secure data-exchange protocols and implement the new procedure in Unit X by Q4”, thereby linking the learning intervention to an organizational benefit while avoiding behavioral scoring of the competence itself.

88. **Aggregated data from the ‘Digital Development Plan’ blocks will be analyzed annually to inform institutional training budgets and to update the catalogue of priority programs.** This information will need to be consistently informed also by the training needs obtained by using a digital competency testing platform, as recommended in Output 4 under the TSI project.

89. **Therefore, even in Phase 2 digital competencies should not be rated within the performance management system.** Instead, they should continue to be assessed separately, based on evidence documented in the dedicated digital skills platform. The platform provides an objective and standardized view of each civil servant’s digital capabilities, allowing managers to understand the employee’s actual digital proficiency without introducing a new rating category into the performance evaluation. This evidence serves as a reference point when analyzing the general competencies required to meet future performance objectives: managers and civil servants can identify which digital elements are already demonstrated and which need to be strengthened, without transforming digital competencies into a parallel scoring system. In this way, the performance framework maintains its simplicity and coherence, while still using robust digital skills evidence to inform performance discussions and development planning.

3.4 Promotion and mobility

90. **Promotion and mobility remain unchanged during Phase 1 of the implementation of the proposed general digital competency framework.** Promotions (advancements in the career system) and lateral mobility in the civil service should not change once the general digital competency framework is introduced, until preconditions are ensured that the existing civil service workforce has access to an assessment platform, targeted and always available training programs and a framework for recognition/validation/certification of digital competencies.

91. **Only after the necessary preconditions are in place, the digital competency framework could be considered for expansion into promotion and mobility processes.** In that case, the processes will consider whether the candidate possesses the requisite digital competencies for the target position only after a formal implementation review confirms system readiness. Specifically, this review is expected to be conducted following an initial three-year period from the introduction of the digital competency framework to determine if it has been effectively embedded and whether the processes in which it is used are robust, namely recruitment and training. The review should verify, at a minimum: (i) the existence and routine use of validated examination blueprints and item banks for DigComp-aligned Areas 1-5 at the basic level in national recruitment; (ii) operational learning infrastructure and curricula that enable staff to acquire and evidence higher proficiency levels; (iii) reliable, privacy-compliant diagnostics (e.g., assessments of digital skills) feeding into annual training plans; and (iv) clear guidance on the interpretation and use of digital competency evidence for HR decisions.

92. **Until such a readiness determination is issued, digital competency evidence will be employed exclusively for developmental purposes and will not be applicable in advancement or mobility, except in separately regulated competitions (e.g., ICT posts) where certified assessments could be required.** Once the three-year review confirms effectiveness and robustness, the career development rules could apply in full: a civil servant may advance or transfer only if they have been

evaluated as meeting the higher-level digital competency requirements of the new role, as demonstrated through recognized examinations, or certified assessments aligned to the general digital competency framework. This sequencing safeguards fairness during the build-out of the national competition and training ecosystem while ensuring that, in the medium term, career progression reflects demonstrable, role-relevant digital proficiency.

93. **Once the full set of tools - assessment platform, training modules, certification pathways, and HRMIS functionalities - become operational, digital competencies will be formally embedded into promotion and mobility processes.** Eligibility criteria should then explicitly require candidates to demonstrate the digital proficiency level associated with the target role; for example, an assistant civil servant seeking promotion to the principal level will need to show evidence of having reached the competencies required at Level B, as defined in the updated framework. These requirements will be verified during the promotion assessment phase, for example through scenario-based exercises that test the candidate's ability to apply digital skills relevant to the higher role. Evidence could also come from results obtained on the dedicated digital-competency assessment platform or from recognized certificates issued by accredited training providers.

94. **To operationalize this system efficiently, HR information systems should be updated to store each employee's certified digital-competency levels,** enabling HR units to filter applicants for promotion or mobility automatically and verify compliance with the digital requirements of the target position. This integrated approach ensures a transparent, fair, and evidence-based mechanism for advancing civil servants in a digitally mature administration.

3.5 Training and certification of digital competencies

95. **Comparative international experience shows that digital competency frameworks are used predominantly as instruments for learning and development.** Their extension into high-stakes HR decisions across the full lifecycle (appraisal, promotion, mobility) typically occurs only after robust assessment, certification, and delivery systems are in place and proven. In Romania's administrative context, ambitions to embed digital competencies in all HR processes should therefore be carefully staged and evidence based. Without mature tools, assessor capacity, and governance, the system risks overstressing institutional capability and incentivizing "check-the-box" practices - for example, perfunctory competency references in job descriptions, superficial appraisal ratings not anchored in validated evidence, or mechanical training completions with little impact on performance. A prudent course is to prioritize recruitment at a basic level and learning and development in the near term, run pilots to test reliability and fairness, and introduce tighter links to appraisal, promotion, and mobility only once tools are certified and results demonstrably improve service outcomes, backed by clear guidance, quality assurance, and periodic external review.

96. **In parallel with the development of a digital skills assessment platform, focus should be for INA on developing targeted training programs. A dedicated output under the TSI project - Output 4 - is devoted to training needs assessment and also includes recommendations on learning and development.** This is a core component of the operationalization of the general digital competency framework. For fundamental digital competencies (Areas 1–5), the platform should allow access to a mix of micro-learning modules. INA should develop short in-person workshops and e-learning courses that introduce essential skills needed across the civil service. These include information and data literacy, digital communication, content creation, cybersecurity and the responsible use of digital tools. Competencies would need to be targeted in bundles that can effectively linked to public administration tasks. For example, a dedicated workshop on "Efficient Online Information Search and Retrieval" directly supports competencies 1.1 and 1.2; a module on "Data Protection and Cybersecurity Basics" could cover the entire Area 4.

97. **INA, in collaboration with NACS and ADR should consider establishing a Digital Academy, with a dedicated Digital Leadership Academy to deliver advanced learning for middle and senior managers.** International experience demonstrates that structured leadership development is essential for sustainable digital transformation. Such programs may include workshops on AI ethics in the public sector, data-driven decision-making, service-design thinking, and digital transformation management, ideally complemented by practical capstone projects that generate tangible improvements in institutional processes.

98. **Parallel to formal training, INA and NACS should also cultivate an environment of continuous informal learning by creating communities of practice** and events - such as monthly “Digital Thursday meeting,” internal peer-support channels, or cross-departmental groups for sharing tools and techniques. These peer-learning mechanisms help build a culture where digital competence is maintained collectively, questions are normalized, and innovation becomes embedded in everyday administrative practice.

4. Towards a revamped certification/ validation/ recognition system for digital competencies

99. **Recognition, validation and certification mechanisms for digital competences are a core enabler for operationalizing the proposed general digital competency framework in the public administration. This chapter proposes a practical model for Romania's civil service.** It responds to issues highlighted in consultations: over-reliance on ECDL/ICDL, procedural barriers to recognizing alternatives, and weak visibility of university-level learning in the digital domain. A dedicated assessment route (TNA platform) is proposed to diagnose digital skill gaps outside the annual appraisal cycle, so training is targeted and evidence-based rather than “check-the-box” – an aspect that is detailed in **Output 4** developed under the TSI project.

100. **The analysis in this chapter was not specified initially as part of the official deliverable under the TSI project, but it emerged as a necessary operationalization pillar during the consultations held with the HR working group.** Several HR working group sessions were organized as part of the design process for the development of the proposed digital competency framework for public administration. The working sessions also allowed a better understanding of the challenges for the introduction and application of digital competencies, as detailed in Outputs 1 and 2 under the TSI project. The primary issues identified include the reliance on ECDL certification, procedural difficulties faced in recognizing alternative training programs, despite their alignment with frameworks like DigComp (now transitioning to DigCompRo), and the lack of recognition for competences acquired through non-ECDL pathways, such as university courses. For instance, individuals completing IT-related modules within the public administration faculties may already possess the required skills across key competence areas without needing additional testing, yet these qualifications often go unrecognized due to a lack of a practical recognition system for digital skills.

101. **The primary objective of this analysis is to clarify and propose a possible framework for recognizing digital competences, addressing these systemic gaps.** Specifically, it aims to identify and suggest recognition pathways using the proposed digital competency framework proposed for the Romanian public administration, correlated with ECDL and other relevant recognition tools, encompassing university training and other courses; develop the recognition system based on diplomas or third-party validation, including potential managing entities; and provide practical recommendations to encourage the exploration and implementation of such recognition instruments.

102. **Conceptually, recognition, validation and certification have different legal-technical functions which are important to effectively serve the purpose of operationalizing the digital competency framework.** Recognition is an HRM decision: an authority accepts a form of evidence (e.g. university diploma, micro-credential, INA/NACS certificate) as meeting a defined competency requirement in recruitment or training. Validation is the process through which learning outcomes acquired in formal, non-formal or informal settings are confirmed against an agreed reference (e.g. DigCompRo or the new digital competency framework for the public administration), typically through structured assessment, portfolio review or third-party verification. Certification is the formal act of attestation, issued by an authorized body (e.g. INA, ICDL exam provider, accredited training provider, university) after successful assessment.

4.1 Overview of the current context and recognition/certification pathways for digital competencies

103. **The current landscape for recognizing, validating and certifying digital competences for civil servants is fragmented, multi-pathway, and inconsistent in quality assurance.** Different channels coexist - ECDL/ICDL diplomas, baccalaureate equivalence, university diplomas, adult vocational training certificates, vendor certificates, online micro-credentials, and INA/NACS CPD certificates, but they are not connected through a common reference framework, nor do they benefit from clear equivalence rules. As a result, public institutions cannot determine which certificates are comparable, which are relevant for which roles, or which reflect the level of digital competence required in public administration tasks. This section reviews the main existing pathways, the current legal and policy basis for recognizing them, and the gaps that prevent their use as part of a coherent HRM system.

104. **Romania has built the foundations of the architecture for a national digital-competence system.** The DigCompRO framework, adopted in April 2025, provides the national reference for defining what citizens should know and be able to do in the digital environment. The proposed digital competency framework for public administration, developed under the TSI project, builds directly on this structure and adapts it to the needs of government institutions. Yet the recognition and certification mechanisms that should turn these frameworks into operational tools remain underdeveloped. In their absence the frameworks risk remaining a descriptive rather than functional part of the HRM system.

105. **Opportunities for certifying digital competences are still limited and largely dependent on private-sector training providers.** Public servants who wish to obtain formal proof of digital skills often need to rely on commercial certificates such as ICDL. Public institutions have no national testing center or government-operated platform for digital-skills assessment. The training programs implemented by NACS under the NRRP provide short-term access to digital courses and certificates, but these initiatives are temporary and project-based. Once the funding cycle ends, there is no institutional mechanism to sustain testing, issue verifiable credentials, or integrate the results into civil-service HR systems.

106. **The certification and recognition of digital skills are constrained by a persistent normative culture that prioritizes administrative compliance over learning.** The main risk is that digital-skills development will continue to be treated as a procedural requirement, as an obligation to attend training or obtain a certificate, rather than as a process of capability building. In many institutions, assessments are viewed as formalities, and success is measured by completion rates rather than demonstrated competence³¹. This approach limits motivation for self-improvement and discourages civil servants from using assessments to identify learning needs or track progress.

107. **Some key features, opportunities, and limitations of the current system are summarized below,** by reference to the main pathways that can inform the recognition/certification of digital skills in the public administration.

ECDL/ICDL

108. **The recognition of digital competences in Romania's public sector heavily relies on the European Computer Driving Licence certificates (ECDL, now rebranded as ICDL).** ICDL certifications are administered through accredited centers and are recognized by the Ministry of Education and Research³² and NACS for recruitment, promotion, and continuous professional development (CPD). The ICDL scheme is de facto the main framework for certifying general digital competences, is fully aligned with DigComp, and it enjoys recognition and use in multiple EU Member States.

³¹ Based on interviews conducted as part of the assessment phase under the TSI project.

³² For example, the Baccalaureate Digital Competence Exam often recognizes ECDL modules as proof of digital competence.

109. ICDL is one of the main schemes recently analyzed by the European Commission in their efforts of mapping the EU landscape of digital skills certification schemes relevant to DigComp.³³ The report identifies 27 such schemes operating across all EU Member States, and analyses their design, governance, services, alignment with DigComp, quality assurance mechanisms, and market adoption. The report was developed as evidence input to Action 9 of the Digital Education Action Plan (2021 - 2027), namely the feasibility study of a future European Digital Skills Certificate (EDSC). Its purpose was to inform how existing EU schemes could be recognized by a common EU certificate, and to support transparency and comparability across certification of digital skills in the EU. From the 27 schemes, the report notes that 20 are aligned with DigComp, out of which 13 are designed based on DigComp and 7 schemes have been mapped to it. ICDL is among the 7, being mapped to DigComp across all 21 DigComp competencies and it is one of the 6 schemes that operate in Romania and which were analyzed as part of the EC report.

Table 5 Distribution of 27 certification schemes across the 27 EU Member States (N=27 schemes), including Romania³⁴

Scheme Name	AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IT	LT	LU	LV	MT	NL	PL	PT	RO	SE	SI	SK
ACTIC (Catalonia)																											
BAIT (Basque Country)																											
CléaN																											
ComDix (Galicia)																											
Comptia Tech+																											
CRISS																											
DIFU																											
DigComp-CERT																											
Digi Vaar																											
DigitAll																											
Dip CBITS																											
e4job																											
ECCC/EDCC																											
eDigiStars																											
EDLRIS																											
EDSC DigComp User																											
EIPASS																											
IC3 GS6																											
ICDL																											
ICT C3																											
IDCERT DigComp 2.2																											
IT Fitness																											
ITpass																											
PEKIT Expert																											
Pix*																											
Tosa DigComp																											
TuCertiCyl (Castile and León)																											
Total	7	5	5	4	5	6	3	3	4	9	3	6	5	6	3	9	3	4	3	5	5	6	5	7	4	4	4
Total in official language(s)	5	4	1	1	3	3	0	1	2	8	1	5	2	4	3	8	0	3	0	4	3	5	2	5	3	2	2

*Pix is available in the French language in Wallonie (Belgium)

International

International in national official language



Multi-country European

Multi-country European in national language



National

Regional

Source: EC JRC analysis

110. ICDL's strength lies in its international recognition, portability via digital credentials, and adaptability-modules can be customized for public sector roles, with annual updates incorporating emerging tech like AI ethics³⁵. It offers modular certifications tailored to various needs: Core (basic skills like computer essentials and online collaboration), Professional (workplace efficiency in areas like project management), and specialized tracks for education or digital citizenship. Certification involves practical, performance-based tests through accredited centers, ensuring verifiable skills in DigComp-

³³ European Commission: Joint Research Centre, *Landscape of digital skills certification schemes in the EU – An analysis from the perspective of the Digital Competence Framework (DigComp)*, Publications Office of the European Union, 2025, <https://data.europa.eu/doi/10.2760/8324498>.

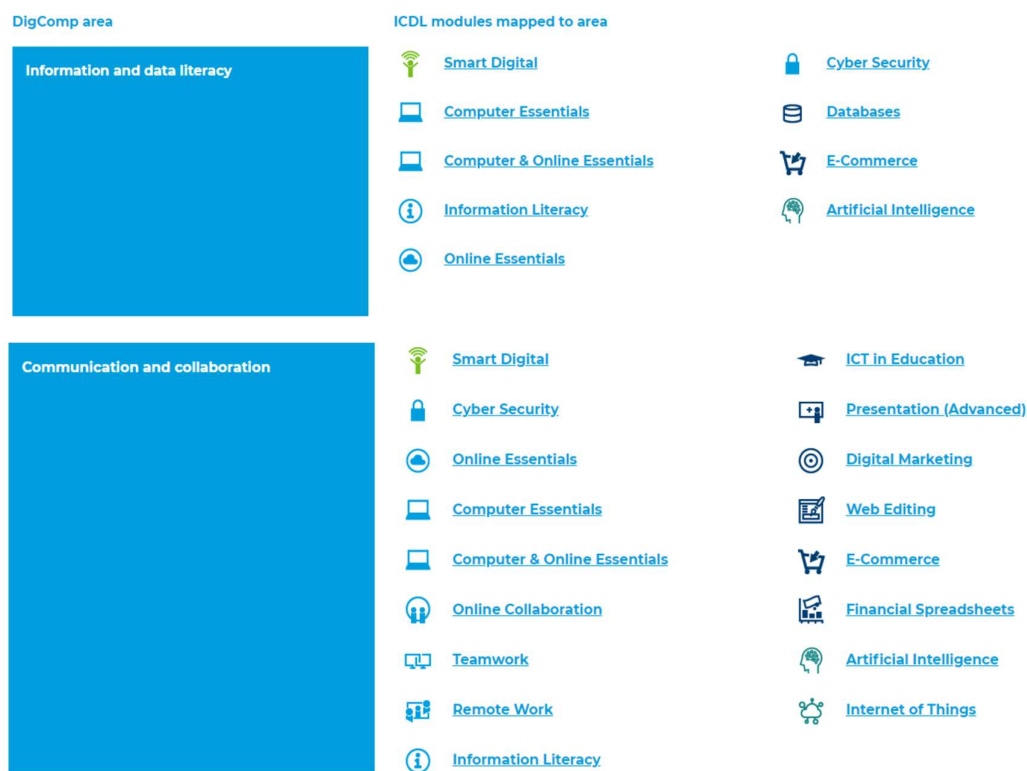
³⁴ Source: European Commission: Joint Research Centre, *Landscape of digital skills certification schemes in the EU – An analysis from the perspective of the Digital Competence Framework (DigComp)*, Publications Office of the European Union, 2025, <https://data.europa.eu/doi/10.2760/8324498>.

³⁵ <https://icdl.org/>

aligned areas such as information literacy, content creation, and safety.³⁶ In public administration contexts, it has been adopted by governments (e.g., in Ireland and Switzerland) for CPD, linking certifications to promotions and reducing training duplication.

111. **For Romania, ICDL serves as a bridge to DigComp, with validated mappings³⁷.** The ICDL mapped the learning outcomes of each ICDL module with competence descriptions and levels defined in the European DigComp framework. An example of mapping between DigComp and ICDL modules is reflected in Figure 7. For DigCompRO, the order no. 1928/2025 of the Minister of Economy, digitalization, entrepreneurship and tourism created a legally binding mechanism to correlate DigCompRO with ICDL at elementary proficiency level. The act specifies the exact module-to-domain correspondence (Computer Essentials, Online Essentials, Word Processing, IT Security) and formally recognises that passing these ICDL modules is sufficient proof that an individual has achieved the DigCompRO elementary level. This has direct relevance for public administration because elementary is proposed to be a minimum threshold for access into the civil service (entry requirements). Therefore, even though the Order is adopted for citizens, it can also be used as a technical and legal precedent to support the use of recognized, existing certificates to demonstrate the minimum digital competence threshold required for recruitment into the civil service (and for basic mobility decisions), without having to re-test individuals who already hold an equivalent certificate.

Figure 7 Examples of ICDL modules mapped to DigComp areas³⁸



Pre-university pathway

112. **In Romania, digital skills are formally assessed as part of the baccalaureate exam, ensuring that graduating students demonstrate basic proficiency in essential areas such as information technology and digital literacy.** ECDL/ICDL certifications are officially accepted as equivalent to passing

³⁶ <https://www.unibocconi.it/en/current-students/it-education-center/it-certifications/icdl-exams-bocconi>

³⁷ https://ecdil.ro/m/articol/ecdl-digcomp_188.html

<https://uis.unesco.org/sites/default/files/documents/ip51-global-framework-reference-digital-literacy-skills-2018-en.pdf>

³⁸ information from <https://icdl.org/digcomp/>.

this exam. The Pre-University Education Law no. 198/2023 defines eight key competencies as benchmarks for Romania's national curriculum, shaping graduate profiles across all school levels. These include reading and writing, multilingualism, mathematics and STEM, digital skills including online safety and cyber security, personal and social learning, civic and environmental awareness, entrepreneurship, and cultural expression, each with descriptors for primary through high school. Also, the Romanian syllabus for "Informatics and ICT" for lower secondary (grades V to VIII) has been mapped to DigCompRo as part of the Governmental decision to approve DigCompRO³⁹.

University pathway

113. **Romania's higher education system features a robust array of IT-oriented degree programs offered by accredited universities** that include both traditional IT skills- such as programming, systems architecture, databases, and algorithms- and interdisciplinary applications like e-government, economic informatics, and digital governance.

114. **Accreditation is managed by the Romanian Agency for Quality Assurance in Higher Education (ARACIS)⁴⁰.** Major technical universities provide engineering-focused IT programs, while comprehensive institutions integrate theoretical computer science with interdisciplinary elements. While IT-oriented degree programs offer targeted training for developing specific IT skills, other non-IT degree programs can include disciplines/modules aimed at further developing the digital skills of students. Graduates receive a university diploma accompanied by a Diploma Supplement, a standardized EU document that details learning outcomes, disciplines studied, evaluation results, and professional status, facilitating international recognition and mobility.

115. **All accredited programs are cataloged in the National Registry for Higher Education Qualifications (RNCIS), maintained by the National Qualifications Authority (ANC), which lists detailed Diploma Supplement information for transparency and comparability.** As of August 2025, RNCIS includes over 200 IT-related entries⁴¹.

Authorized private training providers

116. **In Romania, the market for digital skills development courses is diverse and growing, but the accreditation regime for adult training providers seems to be a challenge for reliable recognition of digital competences.** A significant number of providers continue to market their digital skills programs as "accredited by ANC", despite the fact that, since 2019, ANC has no legal mandate in accreditation of adult training provision. The Ministry of Labor holds the core mandate for the authorization of adult training providers under GD 129/2000. This function is exercised through county-level authorization commissions, operating under its coordination, which assess whether a provider meets minimum standards for organizing adult training programs. Once authorized, the provider gains the legal right to deliver programs that can issue nationally recognized certificates of qualification or competence. In this sense, the Ministry of Labor is the gatekeeper of formal recognition pathways for adult vocational training outside the university system. This role is distinct from academic accreditation processes. This lack of clarity in the market, combined with expired authorizations and the continued use of misleading accreditation claims, creates a trust deficit for user institutions when evaluating the validity of certificates issued outside well-established schemes. The National Register of Authorized Adult Professional Training Providers⁴² shows a high number of training providers with the authorization expired, as well a full list of unauthorized training providers. Many authorized training programs aim or include the development of digital competences. For example, in Cluj⁴³, the list covers training programs that cover a wide range of digital competencies and IT-related occupations. These include basic digital literacy and cybersecurity modules, as well as qualifications for more specialized roles such

³⁹ <https://www.mcid.gov.ro/wp-content/uploads/2024/07/Act-normativ-de-aprobare-a-DigCompRo-04.07.2024-site.pdf>

⁴⁰ <https://www.aracis.ro/evaluare/licenta/>

⁴¹ <https://www.anc.edu.ro/rnc/rncis>

⁴² <https://cluj.mmanpis.ro/autorizare-formare-profesionala/registre-nationale/>

⁴³ Idem.

as Information Security Manager, Database Administrator, Computer Network Administrator, Computer System Programmer, Information Systems Designer, Security Systems Designer, Software Testing Analyst, and specialists in computer-aided design. In addition, several programs target operational roles such as Data Entry, Validation and Processing Operators or “Programmer help” positions. This mix shows that digital training in Romania spans both general digital competences (e.g. foundational ICT use for learning and productivity) and specific occupational pathways aligned to distinct job standards in the labor market.

Courses provided by IT Companies

117. **Similarly, private sector actors also play an important role in developing digital skills through widely accessible training programs.** Microsoft offers free and paid courses via its Microsoft Learn platform, such as "Azure Fundamentals" for cloud computing⁴⁴ or "Microsoft 365 Fundamentals"⁴⁵ for productivity tools, accessible to Romanian users with certifications upon completion. Cisco Networking Academy⁴⁶, operated by private partners in Romania, delivers courses like "Introduction to Cybersecurity" and "CCNA" (Cisco Certified Network Associate), which include networking and security skills, with hands-on labs and global recognition. These private offerings are typically flexible, with durations ranging from a few hours to several months, and prices varying from free introductory modules to €200-500 for comprehensive certifications.

Online digital skills training on platforms, like Coursera

118. **Platforms like Coursera, but also smaller regional or national platforms, have become an important player in delivering accessible online digital skills training.** These platforms cater to a global audience including professionals, students, and lifelong learners seeking upskilling in areas such as data analysis, cybersecurity, AI, and digital marketing. As of August 2025, Coursera's Global Skills Report⁴⁷ highlights a surge in enrollments for digital-focused courses, with over 700 new specializations added this year, many qualifying as microcredentials - short, targeted learning paths (typically 4-6 months) that culminate in shareable certificates⁴⁸. For example, "Generative AI for Beginners" by Microsoft (free with optional certificate) focuses on AI fundamentals, while "Digital Marketing Specialization" by the University of Illinois Urbana-Champaign (free trial, \$49/month for certificate) covers SEO, content marketing, and analytics over 6 months. These courses are often developed in partnership with tech giants like Google and IBM, highlighting the practical skills with hands-on projects, and are flexible for self-paced learning. Coursera's Micro-Credentials Impact Report 2025 notes that such programs have bridged skill gaps for over 8 million learners, with GenAI courses seeing 12 enrollments per minute, making them highly relevant for EU users aiming to meet Digital Decade targets⁴⁹.

119. **Universities across Europe and globally contribute significantly to online digital skills trainings through platforms like Coursera, edX, and their own portals, often integrating microcredentials to provide stackable, credit-bearing options.** For instance, the Open University in the UK offers microcredentials like "Digital Skills for Work and Life" (10-12 weeks, £300-500 with certificate), focusing on productivity tools and online safety, accessible via their platform and aligned with EQF standards for EU portability. Similarly, CHARM-EU, a European university alliance, provides free micro-credentials such as "The AI Revolution and the Organization of Work: Opportunities and Dilemmas", covering topics related to integration and re-elaboration of digital content, Machine

⁴⁴ <https://learn.microsoft.com/en-us/credentials/certifications/azure-fundamentals/>

⁴⁵ <https://learn.microsoft.com/en-us/credentials/certifications/microsoft-365-fundamentals/>

⁴⁶ <https://www.netacad.com/courses/introduction-to-cybersecurity>

⁴⁷ https://pages.coursera-for-business.org/rs/748-MIV-116/images/Global_Skills_Report_2025.pdf

⁴⁸ <https://www.classcentral.com/report/list-of-mooc-based-microcredentials/>

⁴⁹ <https://blog.coursera.org/presenting-courseras-2025-global-skills-report-the-skills-trends-shaping-the-future-of-education-and-employment/>

learning, Principles of artificial intelligence⁵⁰. EUniWell, another EU alliance, features programs like "Digital Wellbeing" (micro-credential, 2-4 weeks, free with certificate option), highlighting mental health in digital environments⁵¹. In Romania, Babeş-Bolyai University collaborates with Coursera for courses like "Digital Literacy for Public Administration" (microcredential, 8 weeks, free audit), tailored to local needs under DigCompRo.

120. **Microcredentials are a growing feature of these online trainings, offering bite-sized, verifiable qualifications that stack toward larger credentials or degrees**, recognized across Europe via the EU's Micro-Credentials Recommendation⁵². On Coursera, examples include Google's "Data Responsibility" course, which is part of Google Data-Driven Decision-Making Specialization, microcredential-aligned⁵³, or IBM's "Cybersecurity Fundamentals" (3 months, free), focusing on threat detection- both earning badges shareable on LinkedIn⁵⁴. Universities like the University of Edinburgh on edX provide "Digital Skills: Artificial Intelligence" (microcredential, 10 weeks, £199 with certificate). In Europe, initiatives like EUniWell's micro-credentials (1-5 ECTS) ensure alignment with the European Qualifications Framework, facilitating cross-border recognition and integration into formal education, as seen in alliances like EU-CONEXUS for green and digital skills⁵⁵. These programs, often free to audit with paid certification, support the EU's goal of 80% basic digital skills by 2030, are also accessible to public administration staff.

Public institutions

121. **INA and NACS also offer specialized training programs tailored for digital skills development.** These programs cover essential topics such as e-government tools, public sector IT systems, data management, digital communication, and cybersecurity basics, all contextualized to improve administrative efficiency and service delivery. For instance, INA's 2025 offerings include courses on basic operational ICT use (computer and operating systems, Office applications, online communication tools, electronic signature, digital documents, data protection and security), but also on digitalization instruments in the public administration (electronic document management systems, digital services for citizens, data analytics and AI-enabled decision-making, PPPs for digitalization, and cybersecurity. These modules go beyond digital literacy and move into "digital transformation enablers"⁵⁶. NACS also offered NRRP financed training on digital skills based on curriculum adapted to DigComp and which targeted 30,000 participants over the past 2 years. More information is available in Output 1⁵⁷. NACS's advanced training targeted DigComp Level 5 (expert user skills in areas like data analytics and cybersecurity), reflecting a structured progression. Certificates of completion are issued for each course, serving as formal recognition for requirements and supporting career advancement within the civil service.

122. **This multi-pathway system, while diverse, leads to certain inefficiencies for public administration employees.** For example, a university graduate that completed IT modules in a public administration faculty may possess competences in data literacy and e-governance but does not benefit from automatic recognition without a formal certification like ECDL. **The table below highlights several parallel pathways coexisting without seamless translation.**

⁵⁰<https://charm-eu.eu/learning/educational-offer/micro-credentials/?e-filter-199dbaf-microcredential-and-online-cours=microcredential>.

⁵¹https://www.euniwell.eu/search?tx_kesearch_pi1%5Bsword%5D=digital.

⁵² Council Recommendation of 16 June 2022 on a European approach to micro-credentials for lifelong learning and employability 2022/C 243/02 Available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022H0627\(02\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022H0627(02)).

⁵³<https://www.coursera.org/learn/google-data-responsibility>

⁵⁴<https://www.coursera.org/specializations/cybersecurity-fundamentals>

⁵⁵<https://www.eu-conexus.eu/en/micro-credentials/>

⁵⁶<https://ina.gov.ro/cursuri/programe-de-perfectionare/t-i-c-tehnologia-informatiei-si-comunicatiilor>.

⁵⁷<https://documents1.worldbank.org/curated/en/099071725093035542/pdf/P506325-665cc739-4063-4e2a-8596-36ccf68fab4d.pdf>

Table 6 Romanian digital skills certification frameworks and recognition pathways

	Framework	Source	Focus area	Level structure	Issuing body	Recognition pathway and certification
1	ECDL/ ICDL Certification ⁵⁸	ICDL Foundation (global), adopted by Ministry of Education	Core ICT skills (computer use, productivity tools, online services)	Modular exams with tiered certificates: e.g. ECDL Basic (4 modules), ECDL Standard/Complete (~7 modules), ECDL Advanced (specialized modules). No explicit levels but progressive module structure ⁵⁹ .	ECDL Romania (authorized test centers)	Internationally recognized certification; accepted by Romanian authorities in lieu of Baccalaureate digital skills exam ⁶⁰ . Often required or preferred for public sector entry-level IT user roles; used in hiring to demonstrate basic digital competency ⁶¹ .
2	Baccalaureate Digital Competence Exam (“Proba D”)	Ministry of Education and Research (RO)	Basic digital literacy for upper secondary graduates leavers (ICT, office, Internet)	Graded proficiency levels determined by practical test performance ⁶² .	Ministry of Education and Research (State Diploma)	Certificate or transcript notation of digital skill level. Mandatory exam for high school graduation; ECDL/ICDL certifications are officially accepted as equivalent to passing this exam ⁶³ .
3	University IT (oriented) Degree Programs	Accredited Romanian Universities	Traditional IT skills (programming, systems, databases) + interdisciplinary applications (e.g., e-government,	Structured degrees: Bachelor, Master, Doctorate. National qualifications framework (EQF 6-8 ⁶⁴); program-specific structure	Universities (with ARACIS accreditation)	University diploma with Diploma Supplement that includes learning outcomes, studied disciplines/subject and evaluation results as well as Professional status. Nationally and internationally

⁵⁸ ICDL modules correlate with DigCompRo elementary levels per ministerial order (forthcoming 2025): <https://economie.gov.ro/proiect-de-ordin-al-ministrului-economiei-digitalizarii-antreprenoriatului-si-turismului-privind-aprobarea-corelarii-nivelului-de-performanta-al-cadrului-de-competente-digitale-pentru-cetatenii-romani/>

⁵⁹ ECDL Romania, Available: https://ecd.ro/articol/ecdl-romania_10.html.

⁶⁰ Ministry of Education, Research, Youth and Sport, “Order no. 5.219 of 9 September 2010 regarding the recognition and equivalence of results obtained in internationally recognised examinations for the certification of competences,” Available at: <https://legislatie.just.ro/Public/DetaliiDocumentAfis/122852>.

⁶¹ ECDL Romania: https://ecd.ro/articol/competente-digitale_90.html.

⁶² Ministry of National Education, “Order no. 4.923 of 29 August 2013 regarding the organization and conduct of the national baccalaureate exam, 2014. Available: <https://legislatie.just.ro/Public/DetaliiDocumentAfis/151258>.

⁶³ Ministry of Education, Research, Youth and Sports, “Order no. 5.219 of 9 September 2010 regarding the recognition and equivalence of results obtained in internationally recognized examinations for competence certification. Available at: <https://legislatie.just.ro/Public/DetaliiDocumentAfis/122852>.

⁶⁴ European Qualifications Framework – a framework spanning eight levels from basic general knowledge to the most advanced frontier of a field of work or study designed to enhance the comprehensibility of national qualifications throughout Europe, hence enabling the mobility of workers and learners across nations and supporting lifelong learning. <https://europass.europa.eu/en/europass-digital-tools/european-qualifications-framework>

			economic informatics)			recognized academic qualifications. Used in the public sector recruitment for specialist roles. National Registry for Higher Education Qualifications ⁶⁵ lists all accredited programs with the Diploma Supplement details.
4	University Degree programs with IT modules included	Accredited Romanian Universities	General digital competencies and interdisciplinary applications	Structured degrees: Bachelor, Master, Doctorate. National qualifications framework (EQF 6-8); program-specific structure	Universities (with ARACIS accreditation)	University diploma with Diploma Supplement that includes learning outcomes, studied disciplines/subject and evaluation results as well as Professional status. Nationally and internationally recognized academic qualifications. Used in the public sector recruitment for specialist roles.
5	Accredited private providers (Continuous/adult/vocational Training)	Private/NGO training providers	Specific digital skills (vary by program, e.g. digital literacy, web design, database, etc.)	Typically, short-term courses (40–120 hours) ending with assessment. Aligned to qualification standards (no unified levels across all courses; each course targets defined competences).	Licensed Training Providers (accredited by Ministry of Labor – county committees)	National certification of professional competence in the given digital skill area.
6	Online digital skills training on platforms like Coursera	Platform (e.g. Coursera, or partner e.g. university)	Wide array of subjects. All subjects related to digital competencies		Platform (e.g. Coursera, or partner e.g. university)	Many certificates are recognized as microcredentials in specific other frameworks.
7	Public institutions: INA/NACS civil servants	National Institute of Administration; National Agency of	E-government tools, public sector IT systems, data management,	Tiered courses from introductory workshops to advanced	INA, NACS (government agencies)	Certificates of completion for each course. Used for CPD requirements and career advancement in

⁶⁵ <https://www.anc.edu.ro/registru-national-al-calificarilor-din-invatamantul-superior-ncis/>

	training programs	Civil Servants (RO)	digital communication, cybersecurity basics, etc. (contextualized for public service) ⁶⁶	programs (often no formal “levels”, but some programs align to DigComp proficiency levels – e.g. PNRR advanced training aimed at DigComp level 5 ⁶⁷).		civil service. Recent large-scale programs under PNRR issue certifications to thousands of civil servants in advanced digital skills ⁶⁸ , establishing a de facto recognition of competency in workplace digital transformation.
8	Public institutions: ADR DigCompRo – National Digital Skills Framework and trainings	Ministry of Research, Innovation and Digitalization (with World Bank support) through local authorities and libraries	All digital competency areas for citizens and public sector (information, communication, content creation, safety, problem-solving, etc.)	Based on DigComp RO: 5 competency areas, 21 competences,	ADR	Will serve as an official reference framework. Expected to guide curriculum, assessments, and certification of digital skills nationally. Recognition path: Certificates issued by ADR as part of the ADRs registry for certificates attesting the existence of basic digital skills according to DigComp Ro.

123. **For the civil service, fragmentation in digital competencies development across different learning pathways is a primary challenge, with no unified equivalence table to compare credentials.** Hiring managers struggle for example to equate an "ECDL Advanced" certification with a Master's in Economic Informatics or an INA digital course. This lack of standardization hampers mobility and efficiency, particularly in a sector employing over 1.2 million people, as it is the case in the Romanian public sector.

4.2 Recommendations for an evidence-based certification and recognition mechanism for digital competencies

124. **Across Europe, digital-competence certification systems are evolving from fragmented training-oriented schemes to frameworks that support public-sector digital capability.** Systems such as France's PIX, Lithuania's Digital Lithuania Academy (DLA), and the Basque Country's BAIT⁶⁹

⁶⁶ INA, "Programe de perfecționare profesională," 2025. [Online]. Available: <https://ina.gov.ro/cursuri/programe-de-perfecționare>.

⁶⁷ ANFP, "MASTERING DIGCOMP modul transversal, inclus în toate modulele de curs," Available: <https://www.anfp.gov.ro/R/Doc/2024/Programe%20de%20formare%20C7%20-%20Transformare%20digitala/14.pdf>.

⁶⁸ European Commission, "Advanced digital skills training programme for civil servants," 2024. [Online]. Available: https://commission.europa.eu/projects/advanced-digital-skills-training-programme-civil-servants_en?

⁶⁹ These systems are analyzed in detail in Output 1 developed under the TSI project and details are also included in Output 4.

demonstrate that success depends on a few core design principles: (i) clear and evidence-based assessments using a digital skills platform; (ii) certifications that are aligned with relevant frameworks, such as DigComp; (iii) portable and verifiable credentials; (iv) and stable and clear governance arrangements. These features ensure that digital competences are measurable, comparable, and operational within the civil service, enabling governments to align workforce capability with digital-transformation goals.

125. Digital skills platform-based assessment is the cornerstone of effective certification. Countries that have replaced attendance-based training with task-based evaluation obtain more reliable, actionable results. France's PIX and the BAIT in Spain's Basque Country produce measurable evidence of what individuals can do, not merely what courses they have completed, allowing public employers to validate competence objectively. For example, in France the assessment system awards "pix" points (up to a maximum of 1024) that map to the DigComp levels, ensuring objective certification through verified skill demonstration rather than self-evaluation⁷⁰.

126. In effective systems, recognition and certification of digital skills are done based on a digital competency framework, with various proficiency levels. The 2025 JRC report⁷¹ that analyzes over 27 EU digital skills certification schemes shows that 20 certification schemes are aligned with DigComp competence areas, and 14 out of these 20 schemes assess digital skills in alignment with the proficiency descriptors in DigComp. The latter defines four main proficiency levels - Basic, Intermediate, Advanced, and Highly Specialized – which can be further detailed into eight incremental stages (levels 1 to 8). However, this broad alignment does not imply that proficiency levels are directly comparable across different schemes. *Most aligned systems (11 out of 14) assess competences at the Basic, Intermediate, and Advanced levels*, while five (including DigComp-CERT, EDSC DigComp User, IDCERT DigComp 2.2, PEKIT Expert, and PIX (up to level 7) also assess the Highly Specialized level. Two additional schemes, ComDix and PIX (for level 8), are mentioned as being in the process of extending their frameworks to reach this top proficiency band.

127. Recognition of prior learning ensures cost-effectiveness, flexibility and inclusiveness. Recognition and validation systems allow individuals to demonstrate competences gained through informal or on-the-job experience, which are then assessed (and validated) against defined learning outcomes and standards. Once validated, the results may be recognized by employers, education or training institutions, or public-sector HR systems as equivalent to formal credentials, thereby avoiding unnecessary retraining and encouraging continuous learning throughout a career. Research shows that validation of non-formal and informal learning is increasingly seen across Europe as a key tool to improve employability, reduce skills mismatches and support lifelong learning⁷².

128. Finally, visibility and communication also determine participation. High-performing systems actively promote their certification tools through national campaigns and digital badges that carry reputational value. The public visibility of digital credentials reinforces engagement, normalizing digital competence as a marker of professionalism. Without such visibility, even well-designed frameworks risk limited adoption and weak institutional traction.

129. Moving forward, Romania needs to establish institutionalized pathways for digital skills recognition/certification that extend beyond temporary project-based interventions. The country already has two essential foundations: the DigCompRO framework (adopted in 2025 for citizens) and

⁷⁰ https://jill-jenn.net/_static/works/pix-a-platform-for-certification-of-digital-competencies.pdf

⁷¹ European Commission: Joint Research Centre, Centeno, C., Cosgrove, J., Schulz, C., Hüsing, T. and Cuartas-Acosta, A., *Landscape of digital skills certification schemes in the EU: An analysis from the perspective of the Digital Competence Framework (DigComp)*, Publications Office of the European Union, Luxembourg, 2025, <https://data.europa.eu/doi/10.2760/8324498>, JRC139548, p. 21.

⁷² OECD, Working Papers No. 270 - Meghnagi M., Tuccio M., *The recognition of prior learning: Validating general competences*, 2022. Available at: https://www.oecd.org/content/dam/oecd/en/publications/reports/2022/04/the-recognition-of-prior-learning_f83256d2/2d9fb06a-en.pdf.

the proposed digital competency framework for the public administration (developed under the TSI project, Output 2), both aligned conceptually. The next step is to design a systematic certification pathway capable of verifying the extent to which public employees meet the expected proficiency levels, while also guiding them toward personalized learning trajectories for continuous digital upskilling. Such a system would turn existing frameworks into operational tools for workforce development and evidence-based HR management.

130. The recommendations below are organized around five pillars, derived from international experience and analysis of the local context:

- I. alignment to a clear standard (the proposed digital-competence framework aligned to DigCompRO);
- II. objective digital competency testing (not only self-declaration);
- III. integration with HR processes (especially in recruitment, potentially later in promotion and mobility);
- IV. trusted governance and quality assurance; and
- V. portability of results (verifiable digital credentials and a national registry).

R1. Adopt the proposed digital competency framework for the public administration as the standard for digital skills testing and development in the Romanian public sector

131. The formal adoption of the proposed digital competency framework for the Romanian public administration would create a single, authoritative reference for digital skills. This framework is aligned with DigComp Ro and DigComp 3.0 and can thus enable the systematic mapping to existing qualifications and credentials, including university diplomas at EQF levels 6-8 and certificates issued by INA or NACS, ensuring consistency across formal education and in-service training systems. It would also provide the foundation for self-assessment and diagnostic tools, drawing inspiration from established EU models such as IKANOS SAT (Spain) and PIX (France), allowing civil servants to evaluate their proficiency and identify targeted learning needs. Finally, integrating this framework with the DigCompRO Registry managed by ADR and with SIMRU developed by NACS can support real-time HR tracking, enabling institutions to monitor digital-skills development, link results to HR analytics, and report progress under the broader digital governance reforms.

R2. Develop a hybrid recognition system – frame, map, recognize, validate, don't over-standardize

132. A hybrid recognition system would provide Romania with a coherent yet flexible mechanism for validating and recognizing digital competences acquired through formal, non-formal, and informal learning. The aim is to balance credibility with inclusiveness, combining the rigor of standardized frameworks with the adaptability of modular and micro-credential pathways. The system should be hybrid, integrating multiple recognition routes rooted in DigComp-based assessments, accredited micro-credentials, university diplomas, INA/NACS certificates, and workplace learning. All these should be mapped to the proposed digital competency framework for the public administration, ensuring comparability across institutions while avoiding rigid over-standardization. Such an approach would allow civil servants to demonstrate competences gained through diverse experiences, increasing both mobility and trust in certification outcomes.

133. The design of this system would reflect the lessons of recent EU policy developments with respect to the development of a European Digital Skills Certificate, which shifted towards supporting comparability and focusing on learning outcomes. The European Commission's feasibility study and 2023 pilot on the European Digital Skills Certificate (EDSC) concluded that a single EU-wide certificate would offer limited added value, given the diversity of national contexts and potential implementation

costs⁷³. Instead, the EU's direction was set toward improving comparability, transparency, and clearly defined learning outcomes within the DigComp framework, rather than creating a uniform certification label. Building on this, Romania's recognition and certification system should emphasize transparent mapping and validation, supported by a national digital-skills recognition portal that logs validated competences and guides users toward further learning. This model would align with the EU's evolving focus on flexibility and comparability, providing a credible yet adaptable recognition pathway that strengthens national systems while remaining interoperable with European standards.

R3. Develop equivalence matrices to ensure automatic recognition of digital competences in the public administration

134. **Romania should develop formal equivalence matrices for digital competencies.** To ensure transparency, comparability, and cost-effectiveness of digital competence certification, Romania should establish a set of formal equivalence matrices linking the proposed digital competency framework for the public administration with other national and international reference systems. These matrices should officially map the competencies and levels of the digital competency framework model proposed under Output 2 to DigComp EU 2.2/3.0, DigCompRO, ICDL, and the digital competency component of the Bacalaureate examination, creating a clear reference structure for automatic recognition. **A proposed correlation between the digital competency framework for the public administration, DigComp 2.2 and ICDL is included in Annex 1.**

135. **The proposed framework, once legally adopted, could enable public institutions to recognize competences acquired through various routes** - formal education, accredited certification, without duplicating assessment. The equivalence mechanism should be institutionalized through secondary legislation, developed and periodically updated by NACS, in collaboration with ADR (as custodian of DigCompRO) and INA (as training authority). The model could follow the precedent of Government Emergency Ordinance No. 27/2025, which maps DigCompRO to DigComp 2.2, and the Order of the minister of economy of digitalization no.1928/2025 approving the correlation between DigCompRO and ICDL certification. By embedding such equivalence instruments in law, Romania would ensure that digital competences can be recognized uniformly across education, employment, and public-administration systems.

R4. Make referencing a digital skills competencies framework like DigComp EU, DigComp RO or the proposed digital competency framework for the public administration a standard for all digital skills development process in Romania

136. **Referencing DigCompRO as the relevant standard should become a requirement for all digital skills training processes, regardless of the target group, training context, or provider.** This would ensure coherence and transparency in digital skills development across Romania. By instructing that each training program, whether offered by universities, or private organizations, explicitly aligns its content and outcomes to the DigComp framework, stakeholders can facilitate consistent recognition and comparability of digital competencies at both the national and international level. This approach also allows for flexibility, as the chosen framework or reference level can be adapted according to the specific audience (such as public servants, students, or external candidates) and the nature of the training, ensuring relevance while maintaining a unified standard across all sectors.

137. **In the public administration, the digital competency framework model developed under Output 2 of the TSI project is aligned to the national standard set by DigCompRO, thus serving as a core reference for recruitment and training.** Building on the principle of framework alignment outlined above, this model would allow competencies to be verified, recorded, and tracked over time.

73

The framework should also be connected to national certification standards established through the Ministerial Order No. 1928/2025, which correlates DigCompRO with ICDL certification, ensuring equivalence mapping, recognized certificates, and public-sector competence validation. In this way, the civil service would move toward a coherent, evidence-based model where digital proficiency is both verifiable and recognized as integral to professional development.

R5. ADR and NACS should collaborate with the Ministry of Education and Research in developing guidelines for universities to reference DigComp (EU/RO/PA⁷⁴) when describing learning outcomes in the Diploma Supplement.

138. **Referencing digital competencies in the Diploma Supplements by using DigComp will improve the recognition of digital competencies nationally and internationally, including in the Romanian public administration.** This can be done by referencing DigCompRo and the proposed digital competency framework for the public administration, based on guidance that should be issued by the Ministry of Education and Research. While universities enjoy academic autonomy, curriculum alignment with national digital competency standards should be encouraged through guidance and quality assurance mechanisms. All digital-skills modules included under various university programmes (particularly those in ICT, public administration, and social sciences) should be referenced to DigCompRO and, where applicable, to the forthcoming digital competency framework for the public administration. This alignment would ensure that graduates entering the civil service or other public roles possess digital competences consistent with national and EU standards. The Ministry of Education, in cooperation with ARACIS and ADR could issue methodological recommendations to guide universities in mapping existing course content and outcomes to DigComp areas and levels, without infringing on institutional autonomy. Such measures would promote coherence, transparency, and portability of digital-skills recognition across higher education and public-sector recruitment systems, strengthening the link between academic preparation and the digital competency requirements in the Romanian civil service.

139. **A list of recognized university diplomas, like university diplomas in Computer Science, Informatics, Cybernetics, and other ICT-relevant disciplines, could be automatically recognized** and valued in public sector recruitment and internal career development. Institutions such as INA and NACS should ensure that public servants who already hold such degrees can be granted exemptions from certain foundational training modules, thereby avoiding duplication and fostering personalized upskilling paths. Creating this formal bridge between higher education qualifications and digital competency recognition in HR systems would increase the perceived value of these diplomas, attract digitally literate talent into public roles, and align Romania's civil service practices with international norms of credential recognition.

R5. Recognize and reward certified skills and university diplomas in HR practices

140. **To strengthen motivation and make digital skills relevant for digital tasks and targeted professional mobility, Romania should integrate the recognition of verified digital competences into the HRM system.** Certified skills and relevant university diplomas aligned with the proposed digital competency framework for the public administration and DigCompRO should be formally acknowledged in recruitment.

141. **A system of digital-skills badges could be introduced, displayed in employees' HR profiles and linked to certifications** (e.g., Data Steward, Cyber Defender, AI-Ready civil servants). These badges could also function as micro-credentials, allowing institutions to identify digital talent and track competence growth over time. Such systems have proven effective in several EU administrations. In

⁷⁴ DigComp EU (2.2 or 3.0 – when published), DigComp Ro

France, the PIX public-sector platform enables ministries to “discover future ambassadors to accelerate the digital transformation of public services”⁷⁵, using verified skill profiles to identify and promote digital talent. Agencies might even incorporate these into their internal awards. For example, achieving a specific DigComp level or holding a certified “Digital Leader” badge could be considered in eligibility for management programs or innovation-related assignments.

142. **However, the full integration of certified competences into promotion and performance-management systems will only be possible once Romania develops the institutional and technical capacity to deploy structured digital-skills assessments and training based on the proposed digital competency framework.** This includes establishing a unified testing and reporting infrastructure, mapping verified competences to DigComp levels, and ensuring interoperability with HR platforms such as SIMRU managed by NACS. Once this foundation is in place, digital credentials could be automatically reflected in HR records and used in career progression and mobility. This staged approach would ensure that recognition mechanisms are credible, data-driven, and fully aligned with the national digital-competence standards.

R6. Enhance public administration training and certification institutions

143. **INA should be strengthened as a certification hub.** INA’s digital skills curriculum should be explicitly mapped to the national framework, ensuring no critical skill gaps. Rather than just offering courses, INA could also develop a tiered “Digital Competency Certification for Public Administration” program, based on the proposed digital competency framework. For instance, INA might offer an exam or capstone that tests an official’s digital skills application in public sector scenarios (combining knowledge of e-government tools, data, cybersecurity, etc.). Passing such an exam could award a certification like “Certified Digital Public Administrator - Basic/Intermediate/Advanced”.

144. **To consolidate INA’s role as a national digital-competence certification hub, a self-assessment and certification portal should be developed, drawing on established international models.** Such a platform can be developed based on the PIX model used in France, which provides digital-skills (self)-assessments and generates verifiable results for civil servants — or designed as a national platform inspired by Spain’s Basque Country BAIT/IKANOS SAT system, which combines self-diagnosis, guided learning paths, and certification options. The portal should allow public servants to evaluate their competences against the digital competency framework proposed, receive tailored learning recommendations, and progress toward formal certification through INA. Detailed recommendations on this topic are included in **Output 4** under the TSI project.

145. **The platform should be interoperable with public-administration HR systems, so that assessment and certification results are automatically recorded in each employee’s “digital skills passport.”** This passport would form part of the national HR database managed jointly by INA and NACS, providing a transparent, continuously updated view of civil servants’ digital competency levels. Integrating this data into HR workflows would enable evidence-based training planning, and in the future, inform promotion and mobility decisions, and support Digital Decade reporting. Such an inventory would enable real-time monitoring of the workforce’s digital-skills profile, helping to identify critical gaps - for example, where few employees possess advanced data-analytics or cybersecurity skills, and to design targeted capacity-building programs.

146. **In parallel, clear standards and recognition mechanisms should be adopted for the specialized IT roles in public administration.** A proposed classification of the specialized ICT roles and of the specialized ICT jobs in the Romanian public administration was proposed under the connected report accompanying Output 2 under the TSI project. ADR should take the lead in establishing a recognition and validation framework for these specialized roles. This would involve developing or adopting equivalence mappings to internationally recognized standards (e.g., CompTIA, Cisco, ISACA

⁷⁵ <https://pro.pix.org/en/public-sector>.

etc.) Such a system would prevent critical IT skill shortages, ensure transparency in hiring decisions, and create professional pathways for technical experts in the public sector. ADR's coordination role would also secure quality assurance and interoperability with European standards, positioning Romania's public administration as a credible digital employer capable of attracting and retaining specialized talent. A dedicated reports with targeted recommendations on attracting and retaining ICT talent in the Romanian public administration was developed by the Bank in 2025 under the Cloud RAS⁷⁶.

R7. Engage universities as infrastructure and knowledge partners in the certification and development of digital skills

147. Universities can play a pivotal role in supporting the operationalization of Romania's digital-competence framework for the public administration by addressing the capacity and infrastructure gaps. Most higher education institutions (HEIs) already manage robust digital-learning infrastructures - such as Moodle or Blackboard platforms, online content studios, and digital laboratories, that can be leveraged by public-sector training providers. Through formal partnerships, HEIs could provide: (i) technical hosting of hybrid or asynchronous training content developed by INA and NACS; (ii) instructional design support, using academic expertise in digital pedagogy; and (iii) access to secure digital-credentialing systems, including emerging blockchain-based micro-credential solutions. These resources would not only extend the reach of training but also enhance the quality and credibility of certification processes.

148. Beyond infrastructure, higher education institutions can serve as evaluation and learning partners, contributing methodological expertise for designing training outcome indicators, and evaluation tools. By collaborating on pilot programs, universities can help measure the impact of digital training on civil-service performance and institutional maturity. Such partnerships would also support the creation of joint research and experimentation spaces, where civil servants and academic teams co-develop digital solutions and assess innovation adoption. In doing so, universities become critical enablers of Romania's digital and institutional transformation, ensuring that professional development is research-informed, technologically modern, and aligned with European standards of lifelong learning and public sector innovation.

Table 7 Infrastructure and expertise in higher education institutions⁷⁷

Area of expertise	Details of potential support for the public administration
1. Digital infrastructure	Learning Management Systems (LMS) such as Moodle or Blackboard to host training modules
	Access to licensed collaborative tools (e.g., MS365, Google Workspace)
	Studios for video/audio content production (e.g., screencasts, webinars)
	Platforms for blended or hybrid learning, including rural outreach
2. Curriculum and training design	Staff with expertise in adult learning and instructional design
	Ability to develop modular and stackable training programs, including microcredentials
	Access to academic content reviewers and quality assurance mechanisms
	Capacity to conduct training needs assessments and learner profiling

⁷⁶ World Bank, *Report with recommendations for attracting and retaining IT staff in the public sector*, Deliverable 8 under the Reimbursable Advisory Services Agreement on Advice to develop the Government Cloud Platform and to Migrate Selected Public Digital Services to the Cloud (P180766), 2025.

⁷⁷ Resources mapped in collaboration with university professors consulted under the assessment phase for Output 1.

3. Research and evaluation support	Tools for monitoring and evaluation of learning outcomes and behavior change
	Applied research units focused on governance, service delivery, or digital public services
4. Administrative and partnership readiness	Continuing education units or university centers for lifelong learning
	Experience managing externally funded projects, such as Horizon Europe
	Existing partnerships with public authorities, INA, NACS, or EU institutions
5. Inclusiveness and accessibility	Infrastructure to reach underserved or remote areas
	Adapted content for learners with lower digital literacy
	Potential for interinstitutional delivery, through academic consortia or alliances

R8. Ensure governance arrangements that are anchored in legal mandates and build capacity for phased implementation

149. **A balanced and sustainable governance model for the certification and recognition system should be built on the existing legal mandates and functional expertise of three key institutions - ADR, NACS, and INA:**

- ADR should act as the technical and methodological authority, responsible for maintaining the national digital competence standards, developing equivalence mappings with EU and international frameworks.
- NACS, based on its statutory role in managing the civil service HRM system and competency-based HRM processes, should ensure that validated digital competences are formally embedded into recruitment requirements and, in the future, in other relevant HR processes (promotion, mobility).
- INA should operate as the implementation and certification hub, responsible for developing and delivering assessments, managing the certification process, and curating accredited training modules aligned with the proposed general digital competency framework levels.

150. **INA and ADR should establish formal partnerships beyond the national level, with EU training institutions and digital academies in other member states,** to exchange good practices and align certification processes with European initiatives. Participation in these networks would enable Romania to benefit from shared content, common assessment tools, and potential joint certification schemes, enhancing mutual recognition of competences across the EU. Such partnerships would also open access for Romanian civil servants to digital training delivered by other European institutions and national academies, strengthening workforce mobility and embedding Romania's digital skills certification system within the broader European ecosystem of digital skills governance.

5. Conclusions and a possible implementation roadmap

151. **The operationalization of the general digital competency framework should follow a sequenced, low-risk roll-out that aligns with existing HRM procedures and avoids disruption to reforms already under implementation.** As highlighted in the different chapters of this report, a phased approach allows institutions to introduce digital competencies where feasibility is highest, test assessment tools in controlled environments, refine proficiency thresholds, and build evaluator capacity before the framework extends to the full talent-management cycle. The following stages set out the recommended sequencing, the scope of integration, and institutional actions required at each step.

152. **A phased approach to implementation is proposed, structured across two phases: Phase 1 (foundation), Phase 2 (expansion and consolidation),** to ensure proportionality, system readiness, and a smooth, evidence-based integration of digital competencies into the civil service HRM system. This would also allow alignment with the proposed phased development and introduction of the system for digital competencies assessment, as described in Output 4 under the TSI project.

153. **To start, it is important to adopt a clear legal framework for the application of general digital competencies in the civil service.** As outlined in the second chapter of this report, Romania should anchor the proposed general digital competency framework directly in the Administrative Code with details included in secondary/tertiary legislation. This requires defining “general digital competencies” as a separate category of general competencies, distinct from the existing general competency framework, and listing all the general digital competencies by type, area, and the proficiency levels. The Administrative Code should codify minimum digital requirements for each type of civil service job. Detailed descriptors should be regulated through secondary or tertiary legislation to allow rapid updates as technologies evolve.

154. **The legal framework should also clearly limit initial application of the general digital competencies to two HR processes during Phase 1.** To avoid inflating the HR architecture and prevent premature or high-stake use, digital competencies should be legally restricted, in the first three years, to two processes: recruitment and training. This approach maintains proportionality, ensures legal certainty, and prevents unintended spill-over into annual performance appraisal, promotion or mobility until tools, assessor capacity, and certification pathways are fully operational. Legal amendments should explicitly delink digital competencies from performance management during Phase 1.

155. **As part of the operationalization, the current job analysis process should be adapted to integrate digital competencies in a targeted and evidence-based way.** Institutions should use the job analysis process to determine (i) whether certain jobs require higher digital proficiency than the legal minimum set for each job type, and (ii) whether any specialized digital tasks justify introducing specific digital competencies. The working group for job analysis in each institution should include digital expertise and apply a simplified, task-based screening to identify only those roles requiring additional scrutiny. Higher proficiency levels or specific digital competencies should be introduced only when strictly justified and should be submitted to NACS for endorsement to ensure consistency and prevent artificial inflation of requirements.

156. **As part of the first phase, general digital competencies should be tested in recruitment but in a proportionate and selective manner.** In the national competition phase, the test should focus only on the minimum digital proficiency level associated with debutant roles and only across a limited number of competencies from Areas 1-5. Of the 14 competencies in these areas, only 8 are proposed

for testing, representing less than 40% of the full framework. This ensures proportionality, fairness, and administrative feasibility. This testing would replace the current “beginner-level IT knowledge” requirement. In the job-based selection process institutions should test the specific digital competencies that are determined through job analysis.

157. **In the first phase effort should be primarily deployed for capacitating the system for assessing digital competencies and ensuring digital upskilling.** For this, a digital skills assessment platform should be developed and targeted training modules should be made available. Detailed recommendations are included in Output 4 under the TSI project.

158. **Phase 2 of implementation would allow the rollout and deeper integration of the general digital competencies into HR processes, based on evidence that the system is capacitated for this shift.** Once the digital-skills assessment platform and the national certification model are operational, the full digital competency framework can be integrated into national recruitment. Test batteries can then be differentiated by jobs and by professional grades (assistant, principal, senior, managerial), allowing institutions to verify both minimum and higher proficiency levels. Specific digital competencies will continue to be assessed strictly in Phase 2 of recruitment (job-based institutional testing).

159. **Digital competencies could be brought into the performance management process while keeping their use focused on development, not scoring.** In Phase 2, they could be incorporated solely as diagnostic inputs to shape individual learning plans and institutional training budgets. A “Digital Development Plan” section should be added to the appraisal form to document training needs without affecting the numerical performance rating. Aggregated insights from appraisal discussions and digital assessments should inform strategic training planning at INA and institutional level.

160. **Digital competencies should be introduced into promotion and mobility processes only after a formal readiness review confirms that the assessment platform, INA training modules and the recognition/certification system for digital skills are fully functional.** Only then should digital proficiency become a formal requirement for advancement. HRMIS systems should be updated to store certified digital competency levels to support fair and transparent filtering of candidates.

161. **The table below summarizes the proposed phased implementation roadmap, highlighting the implications across HR processes.**

Table 8 Indicative roadmap for the implementation of the digital competency framework in HR processes

Phase 1: FOUNDATION		Phase 2: EXPANSION AND CONSOLIDATION
Indicative timeline	2026-2028	2029-2030
General characteristics	Immediate, low-risk integration in processes already using competency-based tools.	Full integration and adjustments based on evidence Transition to this phase based on assessment that confirms readiness. By this point, the digital-skills assessment platform, INA’s training catalogues, and the national certification system are operational.
Justification	It is important first for the system to put in place the legal framework, the job analysis mechanisms, the early testing arrangements, and large-scale	When preconditions are met, the system can transition from basic

	training infrastructure needed to ensure a consistent and fair rollout. Crucially, Phase 1 avoids high-stakes use of the framework. Digital competencies are applied only where tools and support exist, namely in job analysis, recruitment (in a very limited and proportional form) and training.	implementation to full integration of digital skills. Institutions would be able to verify digital proficiency reliably and use this evidence to support differentiated recruitment, structured learning and development, and developmental integration into performance management. Digital competencies can also be used to determine promotion or mobility outcomes. Phase 2 ensures that digital competencies become a normal, low-risk component of HRM.
Legal measures	Amend the Administrative Code to define general digital competencies as a new category of general competencies, specify minimum proficiency levels, and define where and how they are used. Regulate detailed descriptors via secondary/tertiary legislation to allow continuous updating. Amend job description templates to include digital competencies and complexity levels. Amend performance-management, promotion and mobility provisions to explicitly exclude digital competencies during Phase 1.	Legal amendments only based on evidence, to clarify the use of digital competencies.
Job analysis	Update the methodology to ensure relevance for digital competency application. Conduct a simplified job-analysis review to confirm where higher proficiency levels or specific digital competencies are justified in institutions.	Applied to update job profiles as needed, to allow institutions to flexibly adjust job profiles to use the digital skills proficiency levels as needed in correlation with the digital intensity of work and processes.
Recruitment	Integrate the selected minimum-proficiency level in the selected digital competencies (8 competencies from Areas 1-5) into the preliminary testing phase of the national competition. Replace the beginner-level IT requirement with “general digital competencies at basic level (A)”.	Introduce differentiated test batteries via the assessment platform to reflect distinct job profiles (assistant, principal, senior, managerial). Test higher proficiency levels for roles where the law or job-analysis process has justified advanced requirements.

	Accept digital certificates (ECDL/ICDL, DigCompRo, Diploma Supplement for University Degrees etc.) where relevant. If institutions confirm certain specific digital competencies in justified cases, those are tested in job -based selection process.	Maintain assessment of specific digital competencies exclusively at the institutional job-based selection stage.
Training	Develop a digital skills assessment platform. Develop targeted learning modules. Conduct TNA processes to inform individualized recommendations on learning pathways.	INA expands its catalogue of training modules. Launch digital leadership academies and structured communities of practice.
Promotion	Digital competencies not applied	Apply digital competency requirements for promotion as reflected in the job descriptions.
Mobility	Digital competencies not applied	Apply digital competency requirements for mobility as reflected in the job descriptions
Performance management	Digital competencies not applied	Introduce digital competencies only for diagnosing learning needs, not for assigning scores or ratings. Digital competencies become a part of the performance conversation, to determine how they impact the achievement of individual performance and guide individual development plans.

Annex 1 Correlation between the proposed general digital competency framework and ICDL modules

This annex provides a possible/indicative correlation between the **proposed general digital competency framework** and the **ICDL (International Computer Driving Licence)** modules.

The mapping covers all proficiency levels defined in the general digital competency framework proposed for the public administration: **Level A (basic)** for simple tasks following instructions, **Level B (intermediate)** for multi-step tasks and problem resolution with some complexity, and **Level C (advanced)** for generating new knowledge, innovating, and solving complex problems.

The correlation is based on official ICDL module lists and alignments to the DigComp framework (from which the proposed general digital competency framework for the public administration is adapted), sourced from ICDL websites, syllabi, and mapping documents.

Competency areas 1-5 align closely with DigComp's five competence areas, while Areas 6 (Digital Transformation) and 7 (Digital Leadership) are extended for public administration contexts.

ICDL modules are categorized into Base (for Level A), Standard (for Levels A/B), Advanced (for Levels B/C), and specialized modules like Insights (e.g., AI) for higher levels and transformation/leadership aspects.

ICDL modules included in this mapping are drawn from comprehensive lists across ICDL programs (Workforce, Professional, Insights, etc.), including but not limited to: Computer Essentials, Online Essentials, Word Processing, Spreadsheets, Presentation, Using Databases, Cyber Security, Online Collaboration, Image Editing, Web Editing, Digital Marketing, Project Planning, Advanced Word Processing, Advanced Spreadsheets, Advanced Databases, Advanced Presentation, Data Analytics, Artificial Intelligence, Computing, Robotics, 3D Design, IoT, Blockchain, and Big Data.

The proposed general digital competency framework outlines seven competency areas for civil servants. ICDL modules provide practical, certified training that maps to these areas across levels:

- **Base modules** (e.g., Computer Essentials) align primarily with Level A for foundational skills.
- **Standard modules** (e.g., Online Collaboration, Cyber Security) support Levels A/B for operational and collaborative tasks.
- **Advanced modules** (e.g., Advanced Spreadsheets) target Levels B/C for complex analysis and innovation.
- **Specialized/Insights modules** (e.g., Artificial Intelligence, Data Analytics) address Levels B/C, particularly for Areas 6 and 7, focusing on transformation, AI literacy, and leadership.

Correlation by competency area

Each competency area is mapped to relevant ICDL modules, with coverage indicated for Levels A, B, and C. Descriptions highlight how modules support public administration tasks.

Area 1: Digital literacy in public administration

Focus: Searching, accessing, evaluating, and managing data/information for evidence-based decision-making.

- Level A (Basic): Online Essentials (searching/evaluating data), Spreadsheets (basic data management).
- Level B (Intermediate): Spreadsheets (data analysis techniques), Using Databases (organizing/retrieving data), Data Analytics (basic analytics).
- Level C (Advanced): Advanced Spreadsheets (big data techniques), Data Analytics (advanced processing), Big Data (simulation/mining for policy support), Advanced Databases (institutional standards/metadata).

Area 2: Digital communication and collaboration

Focus: Interacting with citizens/businesses, collaborating in teams, ensuring digital integrity.

- Level A (Basic): Online Essentials (email/communication), Online Collaboration (basic sharing/tools).
- Level B (Intermediate): Online Collaboration (managing roles/permissions, interoperability), Digital Marketing (citizen engagement via media).
- Level C (Advanced): Online Collaboration (auditing tools), Project Planning (coordinating workflows), IoT/Blockchain (secure data exchange ecosystems).

Area 3: Digital content and digital public services

Focus: Creating/reusing content, contributing to user-centered services, ensuring regulatory compliance.

- Level A (Basic): Word Processing (basic content creation), Presentation (simple presentations).
- Level B (Intermediate): Image Editing/Web Editing (accessible content), Presentation (tailored formats), Digital Marketing (service improvement).
- Level C (Advanced): Advanced Word Processing (complex materials/guidelines), Advanced Presentation (interactive reports), Web Editing (auditing services for standards like WCAG).

Area 4: Safe, responsible, and sustainable use of resources

Focus: Protecting devices/data, managing identities, promoting sustainable practices.

- Level A (Basic): Cyber Security (basic protection/protocols), Computer Essentials (device management).
- Level B (Intermediate): Cyber Security (risk assessment/GDPR compliance), Data Protection (privacy principles).
- Level C (Advanced): Cyber Security (incident response/strategies), IoT (environmental impact assessment), Blockchain (secure identities/risk mitigation).

Area 5: Problem-solving through digital tools

Focus: Managing devices/issues, using automation for workflows.

- Level A (Basic): Computer Essentials (basic troubleshooting/automation).
- Level B (Intermediate): Spreadsheets (automation tools/formulas), Computing (basic coding for tasks).

- Level C (Advanced): Computing (algorithmic thinking/sequences), Robotics (complex problem-solving), Advanced Databases (coordinating resolutions).

Area 6: Digital transformation in public administration

Focus: Contributing to innovation, developing competence, AI literacy.

- Level A (Basic): Artificial Intelligence (basic AI understanding/opportunities).
- Level B (Intermediate): Artificial Intelligence (ethical use/risks), Digital Marketing (transformation initiatives).
- Level C (Advanced): Artificial Intelligence (AI Act compliance/trends), Data Analytics (horizon scanning), Computing/Robotics (piloting technologies).

Area 7: Digital leadership and governance in the public administration

Focus: Managing performance, leading teams, driving innovation, governance, strategic thinking.

- Level A (Basic): Project Planning (basic monitoring/tools), Online Collaboration (team coordination).
- Level B (Intermediate): Project Planning (predictive models/KPIs), Data Analytics (performance analytics).
- Level C (Advanced): Project Planning (strategic frameworks), Data Analytics (AI governance/foresight), Artificial Intelligence (ethical governance), Big Data (scenario modeling/decision support).

Detailed module correlation table

The table below lists key ICDL modules, correlated to the general digital competencies and levels (A/B/C). Details include how the module supports public administration tasks, based on syllabi and DigComp mappings.

Table 9 Possible correlation table between ICDL modules and the proposed general digital competency framework

No.	Module / Theme	General digital competencies covered and proficiency level	Details
1	Computer Essentials	5.1 (A/B), 5.2 (A), 4.1 (A), 1.1 (A, partial), 4.2 (A, partial), 2.2 (A, partial)	Covers operating systems, file management, hardware/software, networks, and basic troubleshooting. Supports safe use of institutional devices, teleworking, and simple problem-solving in administrative workflows.
2	Online Essentials	1.1 (A/B), 1.2 (A), 2.1 (A/B), 2.2 (A), 4.1 (A, partial), 4.2 (A, partial)	Teaches browser use, online searching, information evaluation, email management, and basic security. Enables data access for reporting/policy, citizen communication, and secure online interactions.

3	Word Processing	3.1 (A/B), 3.2 (A, partial), 1.3 (A, partial)	Focuses on creating/editing documents with templates, formatting, and integration (e.g., tables/images). Supports professional content for administrative tasks, ensuring clarity and institutional compliance.
4	Spreadsheets	1.3 (A/B), 1.2 (A/B, partial), 3.1 (A, partial), 5.2 (A/B)	Includes data organization, formulas, charts, sorting/filtering. Aids data management/analysis for decision-making, reporting, and automation in public admin (e.g., Excel/Power BI basics).
5	Presentation	3.1 (A/B), 2.1 (A, partial), 3.2 (A, partial)	Covers creating/modifying presentations with visuals/formats. Supports tailored administrative presentations, ensuring accessibility/reusability for services and communication.
6	Cyber Security	4.1 (A/B/C), 4.2 (A/B), 4.3 (A/B), 2.3 (A/B, partial), 7.4 (B/C, partial)	Teaches threat protection, passwords, GDPR compliance, incident response. Ensures device/infrastructure security, data privacy, and ethical governance in public services.
7	Online Collaboration	2.2 (A/B/C), 2.1 (A/B, partial), 7.2 (A/B, partial), 6.1 (B, partial)	Uses platforms (e.g., Teams/SharePoint) for sharing, coordination, permissions. Supports interinstitutional workflows, team development, and transformation initiatives.
8	Using Databases	1.3 (B/C), 1.2 (B, partial), 5.1 (B), 5.2 (B)	Covers database creation/querying/management. Enables structured data handling for admin operations, transparency, and problem-solving in institutional databases.
9	Image Editing	3.1 (B), 3.2 (B, partial)	Focuses on editing/formatting images for digital content. Supports creating accessible visuals for public services/documents.
10	Web Editing	3.1 (B/C), 3.2 (B/C), 3.3 (B, partial)	Teaches website content creation/editing with standards (e.g., WCAG). Aids in developing/reusing web-based public services.
11	Digital Marketing	2.1 (B/C), 6.1 (B/C), 3.2 (B)	Covers online strategies, social media, analytics. Fosters citizen engagement, service improvement, and digital transformation.

12	Project Planning	7.1 (A/B/C), 7.3 (B/C), 5.2 (B), 2.2 (B)	Uses tools (e.g., MS Project) for planning/monitoring/KPIs. Supports performance management, innovation coordination, and workflows.
13	Advanced Word Processing	3.1 (B/C), 3.2 (C)	Advanced document features/templates. Enables complex content creation/guidelines for admin efficiency.
14	Advanced Spreadsheets	1.3 (C), 1.2 (C), 5.2 (C), 7.1 (C, partial)	Complex formulas, pivots, macros. Supports advanced data analysis for policy/decision-making.
15	Advanced Databases	1.3 (C), 5.1 (C), 5.2 (C)	Advanced querying/design. Aids in traceability/metadata management for transparent operations.
16	Advanced Presentation	3.1 (C), 2.1 (C, partial)	Interactive/advanced visuals. Supports strategic presentations for leadership/innovation.
17	Data Analytics	1.2 (B/C), 1.3 (B/C), 7.5 (B/C), 6.1 (C), 7.1 (C)	Tools like Power BI for visualization/prediction. Enables evidence-based decisions, trend anticipation, and performance optimization.
18	Artificial Intelligence	6.3 (A/B/C), 6.1 (A/B/C), 7.4 (B/C, partial), 7.3 (C, partial)	AI concepts, ethics, risks (e.g., AI Act). Supports literacy, ethical use, and transformation in public admin.
19	Computing	5.2 (B/C), 6.1 (C), 5.1 (C)	Programming basics (e.g., Python). Aids in automation, problem-solving, and innovation piloting.
20	Robotics	5.2 (C), 6.1 (C)	Basic robotics/programming. Supports advanced problem-solving and tech adoption in processes.
21	3D Design	3.1 (B/C), 5.2 (C)	CAD tools for 3D modeling. Enables innovative content creation for public service design.
22	IoT	4.1 (C), 7.4 (C), 6.1 (C)	IoT concepts/security. Supports governance, risk management, and sustainable transformation.
23	Blockchain	4.2 (C), 7.4 (C), 2.2 (C)	Blockchain for secure data. Aids in identities, governance, and interoperable ecosystems.
24	Big Data	1.3 (C), 7.5 (C), 1.2 (C)	Data mining/simulation. Supports advanced analysis for strategic thinking/policy.

Annex 2 Perspectives for the application of general digital competencies in recruitment in Phase 2 of implementation

(after the digital skills platform is in place and tests and training modules become available)

Once the system is capacitated and equipped with the right tools to assess digital competencies based on the proposed general digital competency framework, competencies could also be tested in a differentiated manner, adapted to various job types.

As an example, at the technical management level (heads of services or units), the recruitment threshold should continue to include competencies from areas 1-5, but also include at least 2 competencies from area 7 - including managing digital performance (7.1) and leading team development (7.2), which reflect accountability for organizing, monitoring, and supporting the digital functioning of the unit.

From the director level upward, the digital competency threshold acquires an institutional dimension focused on governance, coordination, and strategic foresight. Competencies from area 7 should be all covered (7.1–7.5). A director who drives digital transformation (7.3) or ensures responsible digital governance (7.4) should therefore demonstrate the ability to uphold and promote ethical, secure, and coherent digital practices across the directorate. The threshold marks a shift from individual digital proficiency to managerial accountability for collective digital competence and institutional digital performance.

The evaluation of minimum digital competency thresholds aims to verify whether candidates meet the essential baseline of digital capability required for entry into the civil service, without differentiating between higher or exceptional levels of proficiency. It represents a uniform entry-level condition that ensures candidates possess the basic digital literacy necessary to adapt to digitally enabled administrative environments.

The evaluation of minimum digital competency thresholds could be structured around competency packages, each representing an integrated set of digital tasks and the corresponding knowledge and skills required to perform them at the respective function level. Each package should ideally capture the capacity to execute essential digital operations - not in isolation, but as practical expressions of the underlying knowledge, understanding, and procedural skills that support them. Developed directly from the threshold definitions established in Chapter 3, the structure includes only the competencies essential for demonstrating baseline digital capability relevant to the position. Each level of the civil service combines a defined set of such packages, proportionate to the scope of responsibilities and autonomy of the role. In practice, each competency package includes both knowledge- and skill-based items. Knowledge descriptors (e.g., knows, understands, recognizes) are typically assessed through short multiple-choice or matching questions that verify conceptual understanding, while skill descriptors (e.g., uses, applies, performs) are assessed through practical simulations or tasks requiring the candidate to execute specific digital operations.

Table 10 Sample assessment tasks for digital competency thresholds

Competency	Knowledge / skill descriptor example	Practical task (Sample)	Success criteria
------------	--------------------------------------	-------------------------	------------------

1.1+1.2 (Level A)	Recognizes the administrative task type and the corresponding information need. Checks the publication date and relevance of digital data	"You must prepare a short policy note on service efficiency. Select which type of information you need to gather first." (multiple-choice). "You access data.gov.ro to use open datasets. Identify the correct action to ensure the dataset is up to date."	Correctly associates task with information purpose (e.g., data for decision support, not communication). Selects most recent dataset; justifies using metadata correctly.
1.3 (Level B)	Applies institutional taxonomy to organize files	"You receive 15 mixed files (reports, memos, data). Organize them into folders following the given institutional taxonomy."	Logical folder structure; consistent naming; correct classification
2.1+3.1 (Level A)	Produces simple digital documents using official templates	"Draft an email to a citizen request and attach a one-page policy brief using the institutional template."	Professional tone; clear structure; attachment correct and complete
2.2 (Level A)	Works simultaneously on shared documents respecting version control	"While editing a shared report on Teams, choose the best practice to maintain version control"	Selects and justifies "edit directly using Track Changes" option
2.3 + 3.3 + 4.2 + 4.3 (Level A)	Applies security and GDPR principles in daily digital work	"A colleague requests access to a dataset with citizen information. Identify the correct steps before sharing"	Confirms authorization; uses secure transfer; avoids personal email.
3.2 (Level A)	Identifies usability issues in digital service and proposes improvement	"Test this citizen portal mock-up (5 min). Identify 2 usability problems and suggest improvements."	Valid usability issues, feasible suggestions
5.2 (Level A)	Automates repetitive document tasks	"Use mail merge in Word to generate 10 personalized letters."	Task completed without errors; all documents personalized correctly
7.1 (Level A)	Monitors team task tracker, identifies delay, drafts status email	"Review this team dashboard (Planner showing 5 tasks, 2 delayed). Interpret the impact on performance / Draft a status update email for your supervisor explaining the situation and proposed next steps."	Correct delay identification, Impact analysis (identifies affected deliverables, explains dependencies), communicates next steps

Annex 3 Summary of key legal provisions to be updated for introducing the general digital competency framework

Table 11 Overview of the key legal provisions to be amended/drafted to set out and regulate the general digital competency framework

Legal provisions	The purpose/subject matter of the amendment
New legal provisions in Annex No 8 to GEO No 57/2019 on the Administrative Code	These legal provisions should set out the key defining elements of the general digital competency framework (similar to the legal provisions regarding the general competencies framework set out in Article 17(a) of Annex No 8 to GEO No 57/2019 on the Administrative Code)
New legal provisions in a piece of secondary or tertiary legislation	These legal provisions should set out the detailed descriptors for each level of complexity of the digital general competencies
Article 467(9) of GEO No 57/2019 on the Administrative Code	This legal provision should be amended by including also the requirement of holding civil service positions characterized by the same digital general competencies (as a prerequisite for a civil servant that already holds a civil service position to take part in the competition for a different civil service position)
Article 485¹ of GEO No 57/2019 on the Administrative Code	This legal provision should be amended to provide that, as opposed to the other training needs, the training needs regarding digital general competencies will be identified through a dedicated assessment tool/process (not through the annual performance appraisal)
Article 465(1)(g¹) of GEO No 57/2019 on the Administrative Code Article 3(o) of Annex No 10 to GEO No 57/2019 on the Administrative Code Item III of Annex No 10 to GEO No 57/2019 on the Administrative Code	These legal provisions should be amended by deleting the references to the theoretical IT knowledge
Articles 25, 26, 29, 30 and 30¹ of Annex No 8 to GEO No 57/2019 on the Administrative Code The framework methodology approved by Order No 332/2024, issued by the president of NACS	These legal provisions should be amended to include in the job analysis process the setting out of the digital general competencies and their levels of complexity required for each position and to provide that the digital general competencies are subject to the procedural endorsement of NACS (similar to the endorsement issued for the specific competencies)

Article 19 and Article 20(1) of Annex No 8 to GEO No 57/2019 on the Administrative Code Article 3(a) and (f), Article 52(2), and Article 53(1) of Annex No 10 to GEO No 57/2019 on the Administrative Code	These legal provisions should be amended to narrow their scope from all general competencies only to the general competencies set out in Article 17(a) of Annex No 8 to GEO No 57/2019 on the Administrative Code
Article 3(d), (dd) and (ee), Article 45(1)(c), Article 47(1) and (3), Article 64(5), and Article 67(1) of Annex No 10 to GEO No 57/2019 on the Administrative Code	These legal provisions should be amended by including references to the digital general competencies (where the case may be, by replacing references to theoretical IT knowledge with references to the digital general competencies)
Item III of Annex No 10 to GEO No 57/2019 on the Administrative Code	The template of the standardized job description should be amended to accommodate information on the digital general competencies and their levels of complexity