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Human Resources Policy for DiSSCo

DiSSCo Prepare WP 2 – Deliverable 2.3

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Abstract

Deliverable reports a policy for human resource acquisition and management for the future of DiSSCo. The purpose of the Human Resources Policy is to set of guidelines and core management practices that include attracting and selecting the best professionals for the job, training and career development, mobility, work systems and inclusion, performance management and keeping people engaged.

Contribution to DiSSCo RI

The infrastructure needs to be properly framed by a human resources policy, where factors that induce strategic performance in human resources management (HRM) are identified, and key competencies that will guide international recruitment and selection, team-based organisation, performance appraisal and a remuneration system are laid down.

Keywords

Recruitment and selection, training, career development, mobility, work conditions, inclusion performance management, engagement, organisational design

Index

01   INTRODUCTION

The aim of this report is to define a sound policy for human resource acquisition and management for the future of Distributed System of Scientific Collections ERIC. The purpose of the Human Resources Policy is to set of guidelines and core management practices that include attracting and selecting the best professionals for the job, training and career development, mobility, work systems and inclusion, performance management and keeping people engaged.

An appropriate HR policy enables all employees and research teams to operate to their full potential, in line with DiSSCO requirements, ensuring that the engagement and joint action of employees is constant and that opportunities for personal development are provided.

Bringing together 120 institutions across 21 countries, DiSSCo is a European Research Infrastructure Consortium with the aim of unifying bio- and geo-diversity information connected to the specimens held in natural science collections and delivering it to scientific communities and beyond. In addition, DiSSCO intends to offer services providing unified discovery, access, interpretation and analysis of complex linked data; harmonised physical access and digitisation on demand services; integrated user support; and implementation of multi-modal training programmes to enhance data skills.

According to the Conceptual design blueprint for the DiSSCo[1], the structure of DiSSCo will comprise a central Hub integrating services, information technology components (hardware and software), human resources, organisational activities, governance, financial and legal arrangements that collectively have the effect of unifying natural science collections through a holistic approach towards digitization of and access to the data bound up in those collections, and DiSSCo Facilities that comprise the geographically distributed collection-holding organisation(s) (i.e., natural science/history collection(s)) and related third-party organisations that deliver data and expertise to the DiSSCo Hub infrastructure, and which can be accessed by users via the DiSSCo Hub infrastructure.

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[1] Hardisty A, Saarenmaa H, Casino A, Dillen M, Gödderz K, Groom Q, Hardy H, Koureas D, Nieva de la Hidalga A, Paul DL, Runnel V, Vermeersch X, van Walsum M, Willemse L (2020) Conceptual design blueprint for the DiSSCo digitization infrastructure - DELIVERABLE D8.1. Research Ideas and Outcomes 6: e54280. https://doi.org/10.3897/rio.6.e54280

Research infrastructures consortiums like DiSSCO are multiteam organisations with a complex task and can be considered reconfigurable organisations[2]. In this kind of organisation, linkages are central to the coordination and communication between the teams. These linkages can be achieved through an array of lateral processes that vary between more simple coordination processes such as informal groups, to more complex ones such as e-coordination, formal coordination groups or integration roles.

Building a successful ERIC requires not only a solid scientific project that satisfies the needs of a large community of researchers, but also well-designed support functions (e.g., administration, technical, finance, human resources) that help to achieve the scientific activities. Considering that people are the core of every successful organisation, designing an adequate human resources policy is vital for realising the potential of a world-class research infrastructure.

With this report we expect to provide an overview of every aspect a research infrastructure should consider creating and implement the most adequate human resources policy adapted to its needs and ambitions. People are an important part of the operating costs in most ERICs and therefore a key factor for the long-term sustainability of these organisations. DiSSCo should not only be able to attract and recruit good professionals but also, most importantly, retain them over time by giving them autonomy, opportunities to learn and develop, and a socio-affective climate that keeps them engaged with the work and the organisation.

In order to select the best HR practices and guidelines we used the landscape analysis of Human Resources policies across European Research Infrastructures[3] produced earlier by Work Package 2 along relevant scientific literature on human resources management.

Finally, the HR policy we propose here is, in the first instance, designed to the DiSSCO hub structure because of its central coordinating role among the various stakeholders, but also because the various national nodes are subject to the personnel policy of their domestic organisation.

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[2] Galbraith, J. R. (2014). Designing organizations: Strategy, structure, and process at the business unit and enterprise levels (3rd edition). Jossey Bass.

[3] Landscape analysis of Human Resources policies across European Research Infrastructures. DiSSCo Prepare WP 2 – Ms 2.5

02 HR STRATEGY

and CRITICAL SUCCESS FACTORS

One of the main factors in meeting DiSSCo's challenges is having a robust people management system. The human resources management practices that comprise the HR Policy are a fundamental management tool to help the organisation execute its strategy and contribute to the success of its performance and the achievement of its results. Such practices include recruitment and selection, competences aqusiiton, mobility within DiSSCO infrastructure, career development, equality, fairness and inclusion, performance management and keeping people engaged.

The HR policy is a support mechanism for the entire structure. It must be developed in close articulation with the organisational strategy and act proactively for its execution. Its mission is to define, develop and implement HR practices that ensure high levels of motivation and performance of workers and teams in implementing the outlined strategy. In the particular case of RIs, the HR policy should also promote the permanent connection of the various functional units with the National Nodes, in order to guarantee that the RIs' operational policies and objectives are observed throughout the network.

When defining an HR policy, it is important to identify the Critical Success Factors (CSFs) related to the performance of people and that are relevant to the success of the organisation's activities. By definition the CSFs are, for any business, the limited number of areas in which results will ensure a successful competitive performance for the organisation[4]". In this sense, the CSFs are areas of activity that should receive constant and careful attention from management.

In the particular case of HR policy, the CSFs help to define the essential critical aspects, related to the management of people and teams, on which efforts should be concentrated. This is for example the case for allocating the necessary human resources to implement the

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[4] Bullen, C.V., & Rockart, J.F. (1981). A primer on critical success factors. Working paper (Sloan School of Management); 1220-81. http://hdl.handle.net/1721.1/1988

strategy; the adequacy of skills to operational requirements; or the management of internal processes and work organisation. Therefore, it guides managers towards the key dimensions related to managing people and on which they should pay the utmost attention.

The identification and categorisation of CSFs emerge, from a methodological point of view, as a structured technique that aims to support the decision maker in obtaining useful information on a set of matters that are critical for the organisation's performance and should be considered in the definition of the strategy.

As a foundation for the identification of the CSFs considered relevant in the definition of an HR policy for DiSSCo we used the landscape analysis of six similar RI's[2]. Ultimately, we sought to understand best practices related to HR management and to draw outputs for the identification of the relevant CSFs to consider in the implementation of a HR policy, which allows putting into practice the strategy and operational objectives of the DiSSCo, enhancing its leadership and network management capacity.

The five critical success factors considered more relevant are as follow:

(1) flat management structure and autonomy;

(2) engaging people to achieve organisational objectives;

(3) establish the right HR capabilities and competencies;

(4) improve HR operational excellence;

(5) measure impact of HR products and services.

2.1. CSF 1 - Flat management structure and autonomy

DiSSCo has most of the features required to be a distributed organisation. Namely, it has 120 partner instituitons distributed across 21 countries, its work is knowledge intensive, complex, and varied, its goals are to provide services in at least three distinct areas and, finally, has limited financial resources. On the other hand, most of these partners have an extensive experience in the tasks DiSSCo is proposing.

According to the Conceptual design blueprint, the DiSSCO would have a Hub that provides the services and integrates the technological, human, legal and governing arrangements to support those, and the Facilities that include the geographically distributed collection-holding organisation(s) and related third-party organisations that deliver data and expertise

to the DiSSCo Hub infrastructure. Therefore, the workflow would be better organised around functional units as the means to introduce a greater flexibility in the management of skills and competencies within the digitization process. A functional unit (in the sense of organising competencies) is a collection of competencies needed to perform specific tasks within the different steps of the digitization process. A working approach based on functional units could improve efficiency by reorganising the competencies in respect to the existing capacities per institution, as well as being a facilitator for the mobility of the work force. In addition, it is desirable that DiSSCO Hub establish alliances with internal and external partners to provide specific services such as e-science, digitisation, and user support. Alliances match parties' strength to strength and balance control with collaboration. They increase the capacity and capability of each of the involved parties without necessarily asking the parties to relinquish control from one to the other. Such alliances are already foreseen in DiSSCO blueprint and can assume the form of customer-supplier relationships, joint ventures or stakeholder investment[5].

Because the dimension and complexity of DiSSCo's activities does not allow for a uniform and simultaneous application of operational plans in all areas, it is important that teams have the capacity for autonomous resolution of problems and self-organisation. Autonomy can strongly increase the feeling of empowerment for individuals and teams, as well as their ability to adapt to the constant renewal of processes and respond to the demands that emerge in DiSSCo's mission. Therefore, when defining the governance model, it is important to consider, from the beginning, the involvement of the teams in the formulation of projects. This allows them to make their own decisions and independently adapt their course for the successful completion of projects in which they are involved.

Distributed organisational designs[1] enable coordination of work across geographical boundaries and meet the knowledge needs of an increasingly service-oriented organisation such as DiSSCo.

Distributed organisations typically have a fairly flat structure, with high horizontal differentiation, i.e. a high degree of task specialisation, but low vertical differentiation i.e. a relatively short hierarchy. There are fewer middle managers to coordinate between the strategic top (e.g., general director) and the operational base. As this type of organisation is

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[5] Hardisty A, Saarenmaa H, Casino A, Dillen M, Gödderz K, Groom Q, Hardy H, Koureas D, Nieva de la Hidalga A, Paul DL, Runnel V, Vermeersch X, van Walsum M, Willemse L (2020) Conceptual design blueprint for the DiSSCo digitization infrastructure - DELIVERABLE D8.1. Research Ideas and Outcomes 6: e54280. https://doi.org/10.3897/rio.6.e54280

distributed and autonomous, these managers are not concerned with operational supervision but rather with resource allocation, policy implementation, and finance.

Other focus may include innovation, R&D, people management, all of which involve strategy and policy. These organisational designs are often called network or cellular forms, because they configure an array of units around a central node, usually with a strategic function. The units can be part of the organisation or external companies or organisations that are specialists in a particular field

A major advantage of cellular organisations is that each unit has autonomy to focus on its own work. Units can attend to the needs of customers or products because they have the expertise to answer to the complexity of those needs. On the other hand, the central hub of the organisation takes on the duty of coordinating among these units.

We therefore recommend that an appropriate structure for DISSCo would be a cellular or network configuration[6]. Cellular organisational forms are characterised by small, autonomous, self-governing specialised teams or organisations that form relations with other units as needed. The network side of this configuration develops active linkages between internal units and external organisations to meet the knowledge demands of the organisation. Cellular configurations have an inward focus for knowledge exchange within teams, along with boundary-spanning activities in order to get access to external sources of knowledge. Cellular organisations tend to develop extensive relationships with external parties for knowledge acquisition, linking teams and business units with parties outside the organisational boundary to gain knowledge or services. A good example of this cellular organisation is the proposed Centres of Excellence (DCE), which are DiSSCo Facility that specialises in one or more of researching, innovating, developing and operating/performing techniques and/or processes of digitization or other related facets, and disseminating information on same. These DCE are thematic around collections object type, taxonomy and geographic regions and can be constituted by private/public partnerships[7].

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[6] Burton, R. M., Obel, B., & Hakonsson, D. D. (2020). Organisational design. Cambridge University Press

[7] Hardisty A, Saarenmaa H, Casino A, Dillen M, Gödderz K, Groom Q, Hardy H, Koureas D, Nieva de la Hidalga A, Paul DL, Runnel V, Vermeersch X, van Walsum M, Willemse L (2020) Conceptual design blueprint for the DiSSCo digitization infrastructure - DELIVERABLE D8.1. Research Ideas and Outcomes 6: e54280. https://doi.org/10.3897/rio.6.e54280

Finally, cellular organisations relay heavily on rich forms of interaction between people for knowledge exchange. Given flexibility in the way knowledge is exchanged is critical, high interpersonal contact, such as face-to-face meetings and seminars, may be used to facilitate knowledge sharing.

2.2 CSF 2 - Engaging people to achieve organisational objective

The next fundamental critical success factor is to ensure that employees are committed and genuinely involved in the implementation of DiSSCo's strategy and core objectives. This assumes that human resources have a very clear understanding of DiSSCo's mission, vision and core values, and that these are communicated effectively. The mission, vision and values reflect the identity and purpose of an organisation. Competent, empowered and engaged people at all levels throughout our organisation are essential to enhance its capability to create and deliver value. Therefore, we believe it is important to involve and collaborate with all people at all levels and to respect them as individuals. Through recognition, empowerment and enhancement of competence we inspire the engagement of people in achieving their own and organisational objectives.

For the involvement to be institutionalised it is also necessary that the vision, mission and values are inscribed in the organisational culture of DiSSCo. Organisational culture translates the values, beliefs and behaviours shared by the members of an organisation and functions as an organisational mechanism that gives meaning, direction and mobilisation to the members of the organisation.

2.2.1 Motivation and engagement

Self-determination theory (SDT)[8] is a broad model of motivation, personal goals, and wellness, apt for addressing engagement and motivation in today's workplace. SDT's fundamental frame of reference is the individual, and how circumstances such as management style and work context support or prevent the individual's motivation and well-being.

According to this theory, the basic universal psychological needs of autonomy, competence and relatedness underlie high-quality motivation. Autonomy is the basic need to be the

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[8] Deci, E. L., Olafsen, A. H., & Ryan, R. M. (2017). Self-determination theory in work organisations: The state of a science. Annual Review of Organisational Psychology and Organisational Behavior, 4, 19-43

author of one's life, to have a sense of choice and self-endorsement of one's actions. Competence, or mastery, is our basic need to feel effective, to be successful, and to grow through mastering their current workflow and to look for new challenges and responsibilities. Relatedness is our basic need to feel we belong and "matter" to others. Each of us needs to feel supported and feel that others need and value our support as well.

When these needs are satisfied, employees show both their highest quality efforts and their highest well-being. In fact, it is precisely when employees are most empowered and engaged that they experience the most wellness and satisfaction with work. This is also closely correlated with effective leadership behaviours at all levels of an organisation, where individuals and teams are able to problem solve, take decisions and exercise judgement appropriately within the scope of their own expertise.

SDT describes multiple kinds of motivation based on the various "drivers" or motivational forces underlying a person's behaviours that are represented as motivational quality continuum ranging from lower to higher motivational quality. Motivational quality is lowest when the individual is amotivated, which is the result of finding either no value or interest in work or of not feeling effective or capable at the job. Another form of low-quality motivation involves response to external contingency like rewards or punishment and concerns with approval, image management, and self-esteem maintenance. Not surprisingly, low-quality forms of motivation are associated with poor well-being and performance on a variety of outcome variables.

The higher quality types of motivation are energised directly by the employees 'needs, values, and interest, resulting in volitional, high-quality motivation. Here, employees are committed to doing work-related tasks well and, from this investment and effort, derive greater satisfaction, vitality, and wellness. High-quality motivation is evident when one pursues goals and values that are personally meaningful and converge with the goals of the organisation. At work, tasks are intrinsically motivating when captivating and engaging. When work provides opportunities for learning and growth, intrinsic motivation is especially salient.

A few people management practices that contribute to the satisfaction of the needs for autonomy, competence and relatedness include: designing jobs to be autonomous, meaningful and important; showing employees that they are respected, valued, and

included at all levels of the company; providing high quality manager feedback and space to contribute to decisions; and providing advancement opportunities.

Employees psychological connection with their work has gained critical importance in the information/service economy of the twenty-first century. Contemporary organisations need employees who are psychologically connected to their work; who are willing and able to invest themselves fully in their roles; who are proactive and committed to high quality performance standards. They need employees who are engaged with their work

In essence, work engagement is a positive, fulfilling, work- related state of mind that is characterised by vigour, dedication, and absorption. When engaged, workers experience their work as stimulating and energetic and something to which they really want to devote time and effort, as a significant and meaningful pursuit, and as fully absorbing and something on which they are fully concentrated[9]. Engaged employees are self- efficacious individuals who exercise influence over events that affect their lives and realise themselves through work.

Research have consistently shown that job resources and personal resources have a positive influence on work engagement[10]. Job resources refer to those physical, social, or organisational aspects of the job that may reduce job demands, be functional in achieving work goals, or stimulate personal growth. Job resources are assumed to play an intrinsic motivational role because they fulfil basic human needs, such as the needs for autonomy, relatedness, and competence.

Examples of job resources that have impact on work engagement are autonomy, social support from colleagues, skill variety, opportunities to learn and to develop, as well as feedback from performance and a supportive supervisor.

Skill variety fosters learning, thereby increasing job competence, whereas autonomy and social support satisfy the need for autonomy and the need to belong, respectively. In addition, performance feedback and a supportive supervisor increase the likelihood of being successful in achieving one's work goals.

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[9] Bakker, A. B., & Leiter, M. P. (Eds.). (2010). Work engagement: A handbook of essential theory and research. New York: Psychology Press.

[10] Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. Work and Stress, 22: 187–200.

In sum, in order to get people highly engaged with their jobs and the organisation, we must design jobs in DiSSCo that promote skill variety and opportunities to learn through complex and autonomous tasks and diverse working experiences. In addition, create mechanism for performance assessment and feedback. Finally create the conditions to develop a working climate of social support and supportive supervision.

2.3 CSF 3 - Establish right human resources capabilities and competencies

Ensuring that the RI has the capabilities and competences necessary to fulfil the functions is also considered of vital importance. DiSSCo cannot be successfully implemented without well-trained, skilled, competent and proficient workers.

Considering that the roles and responsibilities are many, diverse and changeable, it is not expectable that organisations like DiSSCo will be able to fulfil all their responsibilities without the existence of multidisciplinary teams united around strategic objectives. The existence of professional workers, with the necessary skills and capabilities to face the multiple demands, requires the formation of multidisciplinary teams with high degrees of integration, self-coordinated and capable of collaborating with each other.

2.3.1 Recruitment and selection

Recruitment is a strategic issue for any organisation because people are the source of the skills, knowledge and attitudes essential to performance. Recruitment processes themselves require time and a set of specific skills. It is important to identify and understand the main stages of the recruitment process, as well as define a recruitment strategy. Hiring is an investment and good recruitment takes time.

The European Comission defined a code of conduct for the recruitment of researchers[11] with a set of general principles and requirements that are equally relevant to any other profession in a RI. These principles and requirements should ensure observance of values such as transparency of the recruitment process and equal treatment of all applicants, in

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[11] European Commission, Directorate-General for Research (2005). The European Charter for Researchers, The Code of Conduct for the Recruitment of Researchers, Brussels.

particular regarding the development of an attractive, open and sustainable European labour market for researchers. DiSSCo should establish recruitment procedures which are open, efficient, transparent, supportive and internationally comparable, as well as tailored to the type of positions advertised. From anticipating the need to integrate the new employee, there are many stages of the hiring process, which should all be carefully planned. Further information about these stages is set out below.

- Developing the recruitment strategy and the attractiveness of the organisation. A good external and internal image is a prerequisite for attracting, integrating and retaining the desired candidates. The recruitment strategy needs to communicate effectively about the benefits of the organisation and career opportunities. It should identify recruitment pools (universities, specific training and education tracks, etc.) and engage with these e.g. through events and workshops - recognising that diverse potential employees may have different interests and aspirations and building lasting relationships.

- Preparing the recruitment through analysis of the needs and job description. Recruitment needs are most commonly prompted by organisational growth, increase in organisational complexity (e.g., evolution of technologies), or in response to vacancies or scarcity of personnel (e.g., reduction in working time, maternity/parental leave, resignation). Considering the HR strategy, the available financial resources, and timing, the employer should decide whether to initiate an internal selection procedure or external recruitment. In both cases, fairness, transparency, and merit judgement should be cornerstones of the recruitment process.

- A job description is required with specification of the role and tasks, along with responsibilities, challenges, collaboration with other departments, and requirements in terms of competencies, education, experience, knowledge and/or skills desired to fulfil the position.

- Advertising roles. Advertisements of positions should give a broad description of knowledge and competencies required and should not be so specialised as to discourage suitable applicants. Employers should include a description of the working conditions and entitlements, including career development prospects. It is good

practice to include salary details in the advertisement, and to avoid requirents for specific levels of educational attainment unless these are a genuine necessity of the job, as they may deter people who have equivalent or better levels of experience e.g. from their working life. Once the job announcement has been written, it should be announced through the most effective channels, depending on the content of the job.

- All available channels should be used, in particular international or globally accessible web-based resources such as EURAXESS or the European Researcher's Mobility Portal: http://europa.eu.int/eracareers. Complementary channels can be used ranging from DiSSCo website, cooperating research institutions websites, mailing lists, hard media and social media.

- Finally, the time allowed between the advertisement of the vacancy or the call for applications and the deadline for reply should be realistic. An assessment of whether the communication has been successful, is the quality and relevance of the applications received.

- Selection of candidates. To reduce conscious and unconscious bias it is always preferable to set a selection committee rather than an individual decision maker to review applications and interview candidates. Selection committees should bring together diverse expertise and competences and should have an adequate gender balance. Where possible, members should come from different backgrounds (e.g., sectors, disciplines, countries) and have relevant experience to assess the candidates. A variety of selection practices can be used, e.g. face to face interviews; data tests; practical tests such as collections handling; external expert assessment and others. Practices should be selected to meet the needs for each role. Members of selection panels should be adequately trained in all the relevant practices.

If possible, applications should be anonymised at the point of review to reduce unconscious bias (this may be done e.g. via application software solutions and/or by a member of an HR team who is not on the panel removing names and other identifying or irrelevant details such as nationality.

Each member of the selection committee should review each application through an evaluation template, ideally scoring via an agreed scale against the relevant competencies / requirements for the role, and select the top applicants for interview. After each member has reviewed all the applications, the selection committee should meet and discuss the choices they have made and reach a consensus around the applicants that will be interviewed (ideally three or more depending on the number of applications and the posts available).

Prior to the interview, the selection committee shall agree on the questions that will be asked to each candidate in the same order, and the process for assessing answers (e.g. a scale for scoring), so that all applicants will be treated equally.

During the interview, each candidate should have more or less the same amount of time to introduce him or herself and answer the set of questions created by the selection committee. Interviews should be conducted in a professional and polite way and in accordance with relevant laws and best practice. All questions on personal situation such as family status, health condition, sexual orientation, ethnic background, religion, political opinion or union membership are strictly prohibited.

Once a candidate has been chosen and has accepted the job, the remaining candidates shall be promptly notified, thanked for their interest in the position and asked for permission to store their information in case the RI wants to keep them for later opportunity. Feedback should also be offered to unsuccessful candidates on request, to help them in future application processes.

2.3.2 Training and development

Training and continuing development of skills and competencies are paramount for any organisation in order to prepare staff to adapt to different challenges that arise over lifetime. Training is particularly important in a research infrastructure that deals with complex and unpredictable problems. The European Charter for Researchers and Code of Conduct for the Recruitment of Researchers states: "employers and/or funders should ensure that all researchers at any stage of their career, regardless of their contractual situation, are given the opportunity for professional development and for improving their employability through access to measures for the continuing development of skills and competencies." This is not only true for researchers but for all staff in the RI. The RI should

promote and communicate opportunities to develop new understandings and skills for all staff categories involved and allocate the budget and time for staff learning.

In this sense, training should go beyond job-related skills development like project management, IT development, open science, law, EU projects or service delivery, and include skills focusing on long-term personal development such as leadership, communication, networking skills, stakeholder engagement, project management, presentation skills, facilitation skills, IT and informatics skills and so on. There should also be programmes focused on behaviour, awareness and wellbeing e.g., mental health, diversity and inclusion, anti-harassment etc.

The training practices in DiSSCo should develop around the key competency cluster recommended by Work Package 3 on DiSSCo Competencies and Digital Maturity[12] . The proposed competency framework includes eight clusters of which we would emphasise leadership and management of people, resources and change; communication, collaboration, and training others; digital and technological skills; data and information skills; collections management and curation.

The quality of leadership plays an important role and trainning and development should be encouraged in this respect. Therefore, training for management and governance, middle management, executive leadership, coaching and mentoring should be part of the training plan. As a particular and most relevant case, the report on improving digital capability prepared by Work Package 3[13] give us a good example of the competencies required leaders and managers in different related contexts.

Another aspect that is strongly related to training is innovation. Regarding tools to tap into innovative potential of the workforce, preferable arrangements include autonomous multidisciplinary teams for innovation projects, international innovation committees/ working groups and innovation-oriented peer learning. Consideration of innovation

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[12] Hardy, H., Koivunen, A., Groom, Q., Huybrechts, P., Mergen, P., Berger, F., Von Mering, S., Giere, P., Figueira, R., Arsénio, P., & Cartaxana, A. (2021). DiSSCo Prepare Deliverable D3.1 "Summary Insights and Recommendations on DiSSCo Competencies and Digital Maturity". DiSSCo Prepare. https://doi.org/10.34960/3pc3-pp32

[13] Hardy, H., Koivunen, A., Juslen, A., Groom, Q., Mergen, P., Berger, F., Giere, P., Figueira, R., & Cartaxana, A. (2021). DiSSCo Prepare Milestone 3.1 "Improving Digital Capability - Case Studies & Analysis ". DiSSCo Prepare. https://know.dissco.eu/handle/item/157

labs/hubs and training to support people in leading transformational projects and initiatives is also advised.

Finally, one area where developing competences is essential to the success of DiSSCo is digitization. DISSCo Blueprint[14] sets as a goal to raise its digital maturity and for that purpose it recommends (Recommendation 97 and 98) that DiSSCo and institutional leadership must plan for capacity enhancement in training of digitization and allied personnel among other mesures such as hire digitization personnel and investments in modern efficient equipment, software, CMS and data solutions.

2.3.3 Career development and opportunities for advancement

Career progression and career development are essential to motivate organisation members. Career progression does not only include the notion of promotion, but rather a series of measures to implement in the work context such as granting more autonomy to the employees, varying the tasks and activities for a given position or develop opportunities to acquire new competencies. For example, horizontal and external mobility can be encouraged.

2.4 CSF 4 - improve human resources operational excellence

This critical success factor aims to ensure that people remain focused on the customer's needs and the objectives set out in DiSSCo's strategy. It is important that HR actions are supported by effective processes and procedures that ensure compliance with high quality standards in the exercise of DiSSCo's functions. In this context, it is relevant to carry out systematic assessments/audits in order to identify and correct non-conformities. The human resources self-regulation process is extremely important. Underlying this critical success factor is also the need for DiSSCo to guarantee the resources and means necessary to fully accomplish its mission.

As mentioned above, the fact that DiSSCo is a complex pan-European research infrastructure, comprising a central hub and many national nodes, makes the central office's

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[14] Hardisty A, Saarenmaa H, Casino A, Dillen M, Gödderz K, Groom Q, Hardy H, Koureas D, Nieva de la Hidalga A, Paul DL, Runnel V, Vermeersch X, van Walsum M, Willemse L (2020) Conceptual design blueprint for the DiSSCo digitization infrastructure - DELIVERABLE D8.1. Research Ideas and Outcomes 6: e54280. https://doi.org/10.3897/rio.6.e54280

cohesive role even more. Designing a comprehensive HR policy requires, in the first instance, to focus on the central office structure because of its central coordinating role among the various stakeholders, but also because the various national nodes are subject to the personnel policy of their domestic organisation. Ensuring operational excellence therefore requires the creation of dedicated institutional communication channels in order to allow the dissemination of clear, concise and useful information about DiSSCo.

Work conditions and inclusion should be key values in every workplace. RIs should strive to have a diverse employee component and promote inclusive work practices. Diversity can be a benefit and conforms to the principles of social justice and labour legislation. We recognise the importance of facilitating a workplace that values its workers 'diversity.

2.4.1 Work conditions

In the category of work conditions policies, flexibility of working conditions is one of the HR policies deemed the most important in modern organisations. Flexibility of working conditions can include the right to request flexibility in the number of hours of work per week, number of working days per week/month, part-time work, parental leave, sabbatical leave and location of work (e.g. remote working some or all of the time) among other conditions, subject to the requirements of a role and an employer (e.g. some jobs are not possible to deliver remotely). One important practice could be to determine which tasks may be most suited to working from home and which are suited to the office.

Finally, the creation of a work environment that promotes in employees a feeling that their work is important for others and the society more broadly and thus appreciated. A relational work is defined as the extent to which an individual experiences a sense of support, purpose and social contact in their role. A relational work is linked to less job stress and burnout, hand higher satisfaction, organisational commitment and employee wellbeing[15]. For example, internal recognition programs can be an excellent way for individuals to feel a stronger sense of value and worth from their work.

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[15] Parker, S. H. SMART work design. Centre for Transformative Work Design, Future of Work Institute, Curtin University. https://www.smartworkdesign.com.au/overview

2.4.2 Inclusion

In the category of inclusion, policies related to ethics, equal opportunity and equity issues were regarded as very important conditions. With regard to inclusion, we suggest some practices that aim to protect and increase the representation of minorities and people with legally protected characteristics in ERICS. These practices include (a) information sessions specially directed to specific groups; (b) mentoring and coaching programs, and role modelling especially from senior managers; c) customised career programs for underrepresented groups and (d) transparent reporting of diversity and inclusion statistics with visible monitoring by senior managers. Finally, an indispensable practice to promote inclusion is the inclusion is the need to make reasonable adjustments - including physical access, workplace tools like software, and working practices such as working hours - to accommodate disabilities.

2.4.3 Mobility

Mobility between roles, internal and external, is a strong source of competence development as well as motivation. The opportunity to move to a different job and perform different tasks fosters learning which satisfies the needs for autonomy, relatedness, and competence.

Internal mobility allows employees to have the chance to work in various teams throughout an organisation. With this approach, staff are involved in new projects, activities, administrative and technical challenges and can grow their skills and be more versatile. We also suggest to consider flexible pathways between research, management and technical roles.

External mobility is another instrument to develop new competencies as well as motivate people and therefore should be encouraged. One instrument to promote external mobility already used by other ERICS (e.g., CLARIN) is mobility grants[16]. These grants would fund short visits (one week) to the national nodes or even other ERICS to learn new best practices and initiate future knowledge networks. This form of mobility is intended for technical and scientific staff, experts and scholars to provide or receive training or collaborate.

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[16] Landscape analysis of Human Resources policies across European Research Infrastructures. DiSSCo Prepare WP 2 – Ms 2.5

Another practice to spur mobility within DiSSCo could be through secondment contracts. In this regard, Work Package 3 is reviewing secondment policies for DiSSCo and distributed working practices.

2.5 CSF 5 - Measuring performance and impact

Monitoring the performance of staff in an organisation is critical to maximize the achievement defined by the mission, as well as the fulfilment of the Strategic Plan and the operational plans. HR can lead on key performance indicators (KPIs) - strategic metrics that allow for detailed evidence of the efforts made by individuals and work teams, for example through organisational performance management systems and monitoring. Consequently, they allow the identification of strengths and of areas for improvement.

The monitoring of performance is a critical success factor to be considered in the definition of the HR policy. It is important to define metrics to assess how performance contributes to the concrete results that DiSSCo intends to achieve. Metrics should reflect the main critical success factors of DiSSCo's core activities and provide a balanced view of the most important aspects of DiSSCo's evolution.

In addition to periodic and timely feedback on the evolution of the activity carried out, the main benefit of the assessment system is that it gives rise to greater knowledge, involvement and focus of all people on strategic objectives. Everyone knows in advance how they can contribute and that their performance will be measured by their contribution.

2.5.1 Performance management

A performance management system makes it possible to gather the information needed to build the various programmes (promotion, remuneration, training, etc.) and to support decisions on the career advancements of staff members. Performance management processes include goal-setting, evaluation of performance, reviews by more than one evaluator, and formal feedback. Setting up an evaluation system can serve two purposes:

- to improve communication between management and staff, and to create a positive work environment;

- to make evidence-based decisions about resource deployment and other products or projects such as what training is offered;

- A well-defined performance management system allows mangers to make more informed decisions regarding;

- Promotions, transfers, changes of assignment;

- Actions to improve organisation capability (e.g., training);

- Remuneration adjustment.

Performance management systems are of great interest to the organisation but also to the employee. For the organisation, they enable to monitor the operational aspect (monitoring the contribution of each individual to the achievement of objectives); the control of employment policy (knowing the potential of current and future skills); and the control of hierarchy and structure (identifying dysfunctions, improving the information system). Following the feedback of the evaluation, the employee should be able to improve their work, autonomy, and competence, as well as being aware of the opportunities offered by the organisation. The employee shall be able to express their achievements and their wishes for development, training and career.

In a well-designed performance management system, managers and employees are stakeholders of equal importance who both contribute for a transparent and fair process.

Research[17] has shown that managers need to exhibit the following key behaviours to drive high employee performance and engagement:

- Set clear expectations, priorities, success criteria, and standards;

- Revise expectations in real time, so employees know what to do;

- Provide informal feedback daily to praise, coach, and course-correct employee performance;

- Check in regularly with employees to stay in touch and provide guidance;

- Coach employees and help them solve problems to enable success;

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[17] Pulakos, E.D., Mueller-Hanson, R., & Arad, S. (2019). The evolution of performance management: Searching for value. Annual Review of Organisational Psychology and Organisational Behavior, 6, 1.1-1.23.

- key performance management behaviours for employees.

Next, are the key behaviours employees need to exhibit to do their part in driving high performance:

- Clarify their performance expectations to ensure they understand priorities and standards; revisit expectations when necessary;

- Set expectations with peers about who is doing what, and by when;

- Ask for and accept feedback openly and non-defensively:

- Use feedback to course-correct and continuously improve own performance.

CONCLUSION AND MAJOR RECOMMENDATIONS

In this report, we propose an HR policy to help DiSSCo attract, retain, develop, motivate and engage the best professionals for its mission. This set of management practices are -and will need to remain - dynamic and responsive to emerging best practices and to changes in the scientific and economic environment and in the structure and requirements of DiSSCo..

Independently of the complexity and size of the future DiSSCo, having a properly designed human resources policy will be of great help, both for the organisation and its future employees. Thus, we hope that recommendations and guidelines given in this document will contribute to it.

We finish this section with the most salient recommendations to implement a sound HR policy. From the set of recommendations advanced throughout the document we emphasise the following:

- Ensuring that DiSSCo has the capabilities and competences necessary to accomplish its mission, which cannot be successfully implemented without well-trained, skilled, competent and proficient workers.

- Recruitment and selection of candidates should follow the principles and requirements that ensure observance of values such as transparency of the recruitment process and equal treatment of all applicants, in particular regarding the development of an attractive, open and sustainable European labour market for researchers.

- DiSSCo should establish recruitment procedures which are open, efficient, transparent, supportive and internationally comparable, as well as tailored to the type of positions advertised.

- To ensure that employees are committed and genuinely involved in the implementation of DiSSCo's strategy and core objectives through an effective communication a of DiSSCo's mission, vision and core values.

- To increase employees intrinsic motivation through people management practices that contribute to the satisfaction of the needs for autonomy, competence and relatedness, which include designing jobs to be autonomous, meaningful and important; showing employees that they are respected, valued, and included at all levels of the company; providing high quality manager feedback and space to contribute to decisions; and providing advancement opportunities.

- In order to get people highly engaged with their jobs and the organisation, jobs must be design to promote skill variety and opportunities to learn through complex and autonomous tasks and diverse working experiences.

- Training should go beyond job-related skills development like project management, IT development, open science, law, EU projects or service delivery, and include skills focusing on long-term personal development such as leadership, communication, networking skills, stakeholder engagement, project management, presentation skills, facilitation skills, IT and informatics skills and so on.

- DiSSCo should have an integratedTraining Service that will have the responsibility for the development and implementation of the DiSSCo Training Offer, as recommended by D2.1 Training Strategy document.

- With the purpose of ensuring compliance with high quality standards in the exercise of DiSSCo's functions it is relevant to carry out systematic assessments/audits in order to identify and correct non-conformities, as well as the creation of dedicated institutional communication channels in order to allow the dissemination of clear, concise and useful information about DiSSCo.

- Increase the dedication of employees by creating flexible working conditions such as part-time work, parental leave, sabbatical leave and remote working, as well as internal

recognition programs that contribute for individuals to feel a stronger sense of value and worth from their work.

- Inclusion and mobility practices like mentoring and coaching programs, and role modelling especially from senior managers and opportunities for internal and external mobility are important promotors of engagement and effectiveness.

- The monitoring of performance is a critical success factor to be considered in the definition of the HR policy. Thus, it is important to define metrics to assess how performance contributes to the concrete results that DiSSCo intends to achieve

- Finally, in addition to periodic and timely feedback on the evolution of the activity carried out, the main benefit of the assessment system is that it gives rise to greater knowledge, involvement and focus of all people on strategic objectives.