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D4.1 NGI EQUITY DIVERSITY AND INCLUSION WORK PLAN

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Abstract	This deliverable reports on the actual work plan and the associated strategy designed for fostering principles of equity, diversity, and inclusion across: NGI Resources and Tools, NGI Innovators, NGI Community, and through the active engagement of women innovators and researchers as well as grassroots communities and end users.
Keywords	Equity, Diversity, Inclusion, Women, Communities

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EXECUTIVE SUMMARY

NGI ultimately addresses the need for a more fair, safe, resilient, sustainable, human-centred and decentralised internet. Equity, Diversity and Inclusion (EDI) are therefore the backbone of this envisioned future. NGI fosters and commits to a condition of fair, just, and respectful treatment for all through reducing disparities in opportunities and outcomes for diverse communities, organisations and individuals involved in the overall ecosystem. This will in turn foster diversity of participation. Diversity is achieved through equity and fostered by inclusiveness. These are underpinned by strategies for creating an environment where everyone is: able to participate fully, welcome, respected, and valued. It's about recognizing the needs of each individual and group and having the right conditions across NGI resources, projects and initiatives, so that each person can contribute with their ideas, experiences and talents to the fullest.

This deliverable reports on the actual work plan and the associated strategy designed for fostering principles of EDI across several elements of the NGI programme.

First, this report provides a review of how EDI concepts have been defined and operationalised from the extant literature. These terms often appear to be used interchangeably. Their operationalization is very much context dependent. From this review, a definition for each key concept adapted to the specific context of the NGI programme and ecosystem is derived and presented.

Second, this document presents the strategy designed to address EDI principles within the NGI context. This is drawn upon five pillars of action:

- The NGI Resources and Tools (to enable and promote equity).
- The NGI Innovators.
- The NGI Online Community (both to promote diversity and inclusiveness).
- The specific efforts on promoting better gender equality - see Women in NGI
- The engagement of grassroots communities and end-users respectively (both addressing diversity and inclusiveness).

NGI resources and tools are being assessed and improved accordingly, in order to increase accessibility and thus decrease barriers to understandability and usability mainly related to different physical and intellectual abilities. Through systematically exploring currently underrepresented groups in the overall NGI community, new actions are being designed to identify, engage, and involve new groups, cohorts, and individuals thus enriching diversity of participation in NGI at different levels, with a specific focus on women innovators and researchers. Finally, the perspectives, concerns, visions and desires of end-users and grassroots communities will be co-created and structured in an integrated taxonomy. The resulting future EU agenda will be therefore aligned with the societal demand for a more inclusive, trustable, and safe future internet ecosystem.

As a result of this work, we foresee NGI as a more accessible, inclusive, and societally relevant program and ecosystem.

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ABBREVIATIONS

NGI	Next Generation Internet
RIA	Research and Innovation Action
IT	Information Technology
EDI	Equity Diversity and Inclusion
WP	Work Package



1 INTRODUCTION

NGI ultimately addresses the need for a more fair, safe, resilient, sustainable, human-centred and decentralised internet. While doing so, NGI fosters and commits to a condition of fair, just, and respectful treatment for all through reducing disparities in opportunities and outcomes for diverse communities and individuals involved in the overall ecosystem. A significant effort is being placed to ensure Equity, Diversity, and Inclusion (EDI) of NGI across several axes, acting upon the extant knowledge in these crucial and complex topics. As part of NGI4ALL.E, a dedicated work package (WP) is devoted to this: WP4, *NGI Accessibility and Inclusion - Diversify and Evangelise*. This report represents the first deliverable from this effort and presents the overall work plan designed for fostering EDI in NGI.

Overall, the work on Equity, Diversity, and Inclusion is driven by three main objectives:

1. Making the **NGI better accessible and more inclusive**, targeting under-represented groups and aiming at diverse participation in terms of profiles, gender, age, ethnic group, abilities, and nationality;
2. Ensure **increased participation of women researchers and innovators into the NGI**, while promoting the NGI funded women and their work, in close collaboration with NGI intermediaries (indicated as NGI RIAs in this document);
3. **Fostering increased end users' engagement** with the twofold objective of better assessing their needs in terms of a trustworthy, secure and sustainable internet, and broadly promoting the NGI solutions.

These objectives are executed through three main tasks:

- Task 4.1, NGI Equity Diversity and Inclusion (M1 - M36);
- Task 4.2, Women Innovator Engagement (M1 - M36);
- Task 4.3, End-users' involvement (M6 - M36).

These tasks collectively contribute towards increasing equity, diversity, and inclusion in NGI. In particular, Task 4.1 includes cycles of analyses, design, implementation and evaluation to gradually improve accessibility of NGI opportunities, diversity among community members and innovators, while contributing to the overall communication and dissemination of NGI principles, actions, outputs, and outcomes. Task 4.2 and 4.3 focus on engaging women in NGI across different elements of the programme, as well as the view and desires of end-users and grassroots communities involved in digital rights and NGI-related concepts.

A focus on EDI represents the new addition to this phase of NGI4ALL (started in July 2023). As a consequence, there hasn't been a focus on generating and storing relevant data and information to assess the current level of equity, diversity and inclusion across the relevant elements of NGI, such as the NGI Innovators and the members of the online community. For example, no information beyond names, organisation type and (partially) interest is available for the over 1,300 community members. Sources of evidence of diversity of NGI Innovators are also scattered and, in cases like gender composition of the innovators' teams, completely lacking.

Given the situation, while making an effort to obtain as much information as possible about the past, the focus on this work package is generally set as oriented towards the future. The approach taken is therefore based on: (1) establishing key definitions of Equity, Diversity and Inclusion, from a review of existing literature and approaches; (2) identifying the pillars within NGI or its key working areas, that are relevant to EDI considerations; (3) adapting the definitions to these pillars; (4) exploring and establishing what are the potential sources or



causes of underrepresentation (or lack of diversity), lack of inclusive experience, or of unequal opportunities offered to innovators and community members ; and (5) act upon these elements and project's areas to foster improvement of EDI metrics.

This report is structured accordingly, whereby section 2 covers the key foundational concepts of EDI. Section 3 presents the key pillars and the relevant dimensions within them, as well as the actions planned for each. Section 4 is dedicated to the timing related to the specific activities in the work plan, before conclusions are drawn.

2 FOUNDATIONS: EQUITY, DIVERSITY AND INCLUSION

The first step undertaken to approach EDI work in the NGI was about reviewing the foundational concepts (i.e. equity, diversity, and inclusion). This work involved, on the one hand, a review of the definitions available in the extant literature, and, on the other hand, how these are being operationalised across contexts.

In general, the literature, as well as the practitioners-based approach to this complex topic agrees on the importance of establishing key definitions of what the terms Equity, Diversity and Inclusion actually mean. This is motivated by the fact that these concepts are observed to be often used interchangeably, while they are underpinned by different theoretical underpinnings and practical approaches.

A.2.1 EQUITY

Equity is defined as a condition or state of fair, inclusive, and respectful treatment of all people. The literature on the topic is vast and traces back to the origins of political science as well as other disciplines such as sociology and economics. Clearly, the literature generally agrees on the fact that equity and its meaning are highly positioned, i.e. highly ingrained in the context. De Jong and De Josselin (1953) take the perspective of cultures and emphasise how every culture must find ways to institutionalise systems for an equitable apportioning of resources among its members (e.g. the entire population in case of governmental institutions). The focus mostly resides in developing norms of equity and teaching these to the members of the system (Walster et al., 1973). The view is therefore taking society as the unit of analysis where equity becomes something where consensus is generally agreed. Over the years, equity has become more and more relevant across topics and disciplines. More recently, equity came also about as a key focus for IT and Information Systems researchers with more and more focus being placed on inequities in information creation, production, distribution and consumption (Lievrouw and Farb, 2003).

Overall, equity does not mean treating people the same without regard for individual differences, but commitment to the fair and just treatment of all individuals (e.g. NGI Innovators, community members etc.) through the creation of opportunities and reduction of disparities in opportunities and outcomes for diverse communities and individuals in/from NGI.

i. 2.1.1 Equity versus equality

An important distinction is made between the concepts of equity and equality, which have been seldom defined in related research (Lievrouw and Farb, 2003). The Cambridge dictionary defines equality as: “*a situation in which everyone is equal and has the same rights*”¹; whereas equal is defined as: “*someone who has the same ability or rights as someone else*”². Equal therefore underpins identicality across criteria against which equality can be measured or assessed. These criteria could be aspects such being in identical number, value, intensity, rank, among other examples. Equity, on the other hand, implies elements of fairness and impartiality and represents the quality of being equal.

Equality, differently from equity, is achieved in those situations where individuals in a given system (or groups of individuals such as communities or organisations) are given the same resources and opportunities with respect to a given issue or process. As seen above, the concept of equity goes beyond this by recognizing that different individuals have different

¹ Source: <https://dictionary.cambridge.org/dictionary/english/equality>

² Source: <https://dictionary.cambridge.org/dictionary/essential-british-english/equal>



circumstances, traits, priorities and issues. The scope of equity is therefore on allocating and giving access to the exact resources required to reach an equal outcome (in the case of NGI, equal opportunities). A common analogy to explain this difference is provided in the figure below. Here, three kids of different heights are standing by a fence which they need to overlook to be able to watch a football match. The picture shows that in an “equal scenario”, i.e. whereby each kid is provided with the same resource, one can clearly see over the fence, another kid can barely see over, and the third kid who happens to be on a wheelchair can’t see anything. In this case, equity is “giving each kid something to stand on based on their height so that they all could see the same thing.”

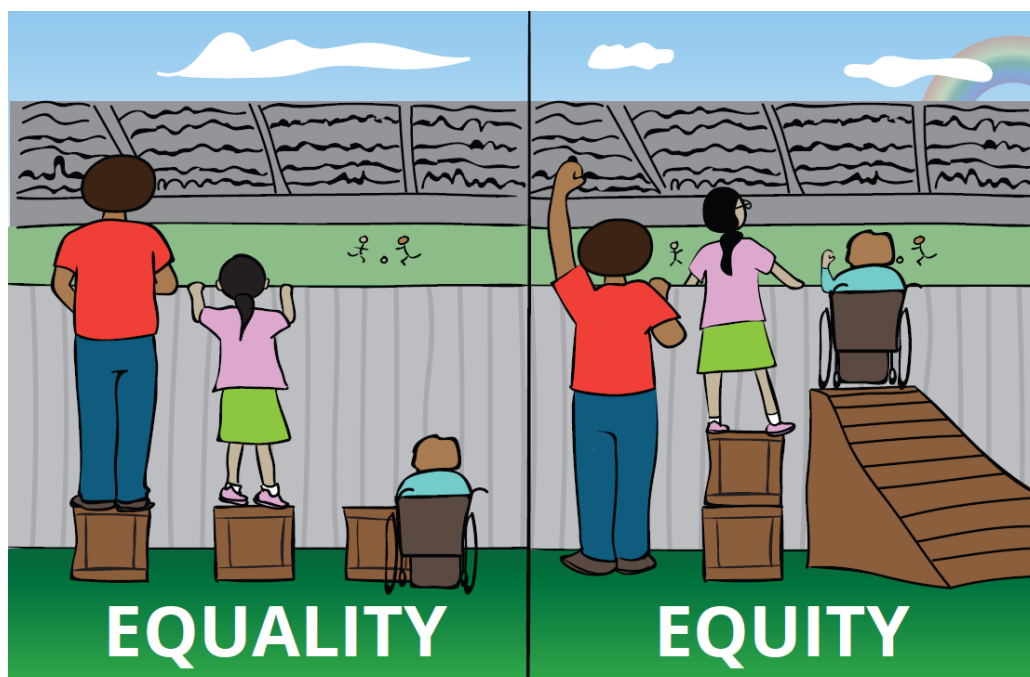


FIGURE 1: EQUITY VERSUS EQUALITY

B. 2.2 DIVERSITY

In general terms, diversity is defined as the presence of difference within a given setting. However, the setting could be potentially every possible imaginable context. It could be the diversity of species in an ecosystem or the diversity of clothes in your closet. In NGI, since the focus is on individuals and groups, we refer to **diversity of identity**.

The reasons behind fostering diversity are well known. First, NGI ingrains in its core a focus on everyone from both the opportunities provided through the RIAs as well as in terms of the audience of the NGI innovators’ products and services. Second, it is well acknowledged that “diversity is an important constituent and condition of human freedom”, and that therefore a diverse “environment expands people’s horizons of thought and sensibility” (Momin, 2002; p. 102). In this case the “environment” relates to the NGI ecosystem. From the latter, academics and practitioners coined the approach of “celebrating diversity” to achieve advantages in several directions, including but not limited to creativity and economic ones (Fincher et al., 2014). To substantiate this, Rock and Grant (2016) in their HBR essay entitled “*Why diverse teams are smarter*”, make the clear case that “*striving to increase workplace diversity is not an empty slogan — it is a good business decision*”³. As a further example, recent research from

³ Full article available at: <https://hbr.org/2016/11/why-diverse-teams-are-smarter>

McKinsey found that diverse companies are 35% more likely to financially outperform more homogeneous ones⁴.

Diversity aspects considered in the literature could include aspects like ancestry, culture, ethnicity, gender, gender identity, language and accent, physical and intellectual ability, race, sex, sexual orientation, socio-economic status/ caste, native origin/indigenous, age, generation, disability, religion, belief system, civil state, parental status, pregnancy, appearance, education, geographic, nationality, work experience, type of work, thinking style, personality type. Notwithstanding this, the focus is often dictated by the context in which diversity is sought and/or fostered/celebrated. Typically it resides on identities that have received (and still receive) systematic discriminatory treatment and create advantages and barriers to opportunity and resources. In this way, diversity assumes a meaning in a collective or a group, and therefore only exists in contexts where relationships exist. A person (e.g. a NGI member, innovator, candidate, ambassador) is not diverse. Rather a person is unique, an individual unit. In summary, diversity refers to anything that sets one individual apart from another.

More specifically, the definition adopted in this work is of diversity as all the differences between people in how they identify themselves. It refers to the variety of similarities and differences within a group of people. Consistent with the principle of celebrating diversity mentioned above, we understand diversity as the presence of a wide range of human qualities and attributes within the NGI ecosystem.

In section 3 below, diversity is broken down into what are the critical factors of difference that are relevant in NGI and specifically within those groups of individuals within NGI where diversity is sought and fostered, i.e.: the NGI Innovators, the NGI Community, and the NGI audience / end-users.

C.2.3 INCLUSION

Inclusion is different from equity and diversity by definition and refers to the experience of being part of a given setting and specifically to the induced sense of belonging in an organisation or, in this case, in the NGI ecosystem. In other words, borrowing it from the field of EDI in the workplace, inclusion is defined as a dynamic state of feeling, belonging and functioning in which diversity is taken as an advantage to create a fair, healthy and high-performing organisation or community. Inclusion in this sense enables people and groups to feel safe, respected, listened to, committed, motivated and valued for who they are (from one perspective in alignment with the principle of celebration of diversity).

We therefore understand inclusion as the situation in which individuals or communities (both physical and demographic) can be fully involved in NGI, including the economic, social, cultural and political dimensions of this environment. It requires the creation of an atmosphere where everyone feels welcome, respected, able to participate fully and valued. It's about recognizing the needs of each individual and having the right conditions so that each person has the opportunity to bring their entire selves to work and contribute their ideas, experiences and talents to the fullest.

D.2.4 EQUITY, DIVERSITY, AND INCLUSION

Based on the definitions provided above, it is useful to reflect among the relationships between these three fundamental concepts. All in all, these elements are separate but entangled.

⁴ Full research available at: <https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/why-diversity-matters>



As seen above, equity is an approach that ensures everyone has access to the same opportunities. Equity recognises that advantages and barriers exist and that, as a result, we all don't start from the same place; we all come from diverse backgrounds. Equity is a process that begins by acknowledging that unequal starting places exist and makes a commitment to correct and address the imbalance. The key here is therefore to think about all potential barriers to access, understand, and use the resources, tools, and opportunities offered by NGI. Our work focuses on intentionally creating programmes, resources and tools that are equitable, resulting in justice and fairness for all candidates, innovators, members, and audience.

If these practices and resources are in place, efforts towards equity often lead to diversity, which, together with inclusiveness, can be seen as end, desirable, conditions in a given ecosystem. In other words, diversity refers to the composition of the ecosystem (i.e. the presence of diverse identities) and inclusion to the experience of those that constitute it (i.e. the need for them to be valued, accepted and actively engaged). In this way, diversity and inclusion are outcomes. Equity is not. Rather, it refers to processes/resources/tools that NGI consistently undertakes/provides in a way that all people and specifically those with marginalised identities have the same opportunity to participate, contribute and develop, regardless of their identity.

While a relationship can exist between equity and diversity (i.e. under the commonly made assumption that the more equal access and opportunities are provided, the more diverse the resulting ecosystem), this is not the case when considering inclusion. Indeed, while equity can be seen as part of providing an inclusive experience, the relationship is not straightforward. With respect to diversity, instead, it is known that inclusion can't be seen as a natural consequence of diversity. An example that is often used to show the difference is the following: diversity is being invited to a party; inclusion is being asked to dance. In other words, we can have diversity in NGI, but this does not necessarily mean that everyone feels welcome and/or valued, is given opportunities to grow, and gets the same level of support.

In conclusion, **Diversity** is about differences, **Equity** is about providing equal access and opportunities, and **Inclusion** is about fostering a sense of value and empowerment.

E.2.5 REVIEW OF EXISTING EDI FRAMEWORKS

Beyond the definitions, the next step has been about investigating how these concepts have been operationalised, i.e. applied in practice, to achieve a more in-depth understanding to inform the development of the EDI strategy and work plan for NGI.

As expected, concepts of equity and more generally of justice, are significantly grounded in sociology (Shapiro, 1975) (Cook and Hegtvædt, 1983). However, when looking at more recent applications of these principles, there is a general lack of detail and best practices.

The review undertaken clearly demonstrates how existing EDI frameworks and approaches, even if scarcely documented, tackle these concepts mainly at three levels:

1. At the organisational level: this first category includes the majority of frameworks encountered. These typically outline process-based frameworks to be implemented within organisations to finally promote cultural and policy change towards EDI in the workplace (Ézbilgin, 2009), with some studies being focused on specific fields and sectors, e.g. (Powell and Sang, 2013).
2. Policy making, mainly in relation to ensuring distributed justice and that both the input and impact of public policies are as much as possible considering diversity and leading to equal outcomes.
3. In education, i.e. focusing on providing equal opportunities while promoting diversity and inclusion in education as well as all the other processes and practices revolving



around it (Hartwell et al., 2017) (Eaton, 2022), sometimes with a specific focus on people with disabilities, e.g. (Wollbring and Lillywhite, 2021) or on international students' communities (Tavares, 2021).

An additional considerable focus has been observed on healthcare with mainstream literature tackling these complex issues since the beginning of the 1990s and before (Culyer and Wagstaff, 1993). However, even in this field, challenges for the operationalising equity diversity and inclusion still exist nowadays (Spector et al., 2019).

Examples across these spheres are however countless, with most organisations, both public and private, as well as other types of institutions, have now an EDI plan or manifesto established and made available publicly.

University College Dublin (UCD), for example, developed and is currently undertaking an EDI strategy internally build upon six critical building blocks (mainly drawn upon the Irish Human Rights Equality Commission's Framework for Building a Culture of Equality and Human Rights in the Workplace⁵): (1) principles and behaviours; (2) clear responsibility and accountability; (3) implementation plan; (4) EDI training and support; (5) embedding EDI principles; and (6) progress review, evaluation and communications. The framework is quite general in nature and, as all those encountered, lacks the details on how these six pillars are actually put into practice.

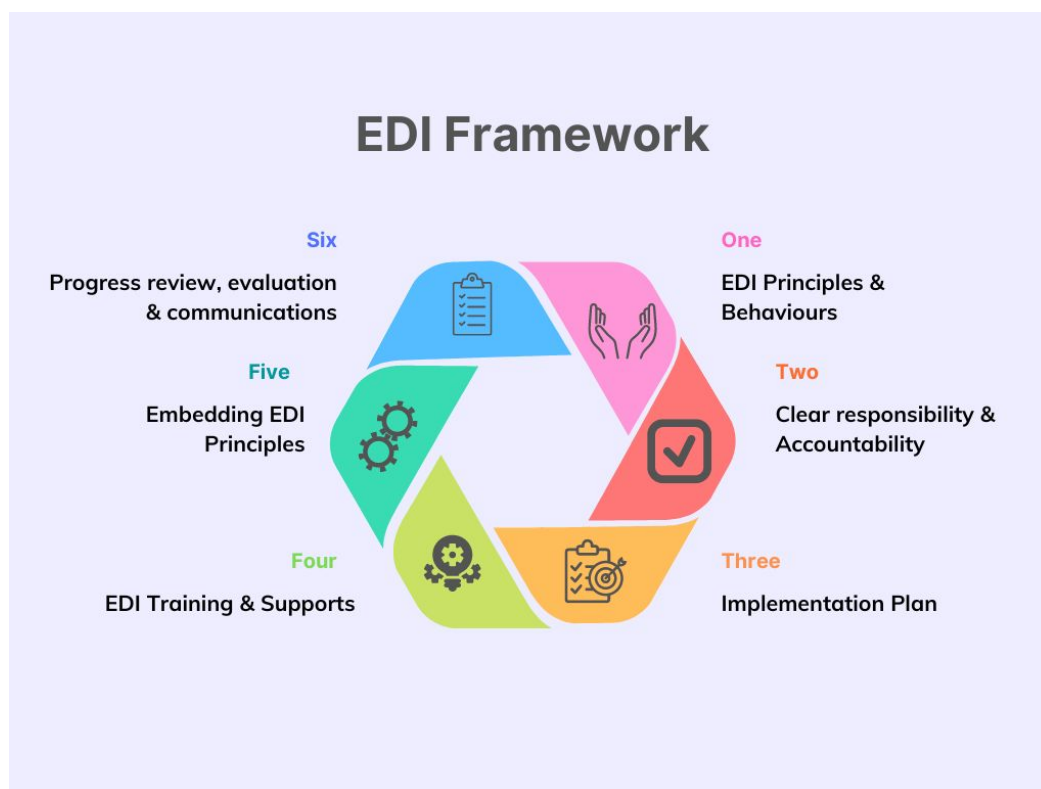


FIGURE 2: UCD'S EDI FRAMEWORK AND PILLARS⁶

Other plenty of examples come from EDI applied to specific economic sectors. Even though these typically claim to be industry-specific, most of the proposed frameworks appear to be more industry-neutral, i.e. applicable across contexts. For instance, the Association for Project Management (APM) recently published a process based framework for ensuring EDI is actively

⁵ Available at: <https://www.ihrec.ie/guides-and-tools/human-rights-and-equality-for-employers/building-a-culture-of-human-rights-and-equality-in-the-workplace/>

⁶ Available at: <https://www.ucd.ie/ppi/plan/equalitydiversityandinclusion/>

taken into account in the construction industry⁷. The six recommended steps in this process are (see also figure below):

1. Action – Companies should sign up to an equality, diversity and inclusion policy/scheme so that it can be implemented throughout the organisation.
2. Leadership – Management teams must complete EDI training and to follow policy/scheme rules.
3. Awareness – At least 90 percent of employees should complete the EDI training, to understand what EDI is, and then follow the policies and scheme rules.
4. Engagement – Companies, leaders and employees should show evidence of training and the policy/scheme being implemented.
5. Measure – Unannounced and announced visits from an EDI awarding body to monitor whether the policy/scheme is being implemented across the organisation. They can monitor improvements in EDI, and officially sign off completed stages.
6. Award – Once all stages are completed and recognised and EDI improvements have been made and all criteria met. In order to encourage better policies for diversity and inclusion, organisations that are promoting EDI should be recognised through an awarding body that is highly respected.

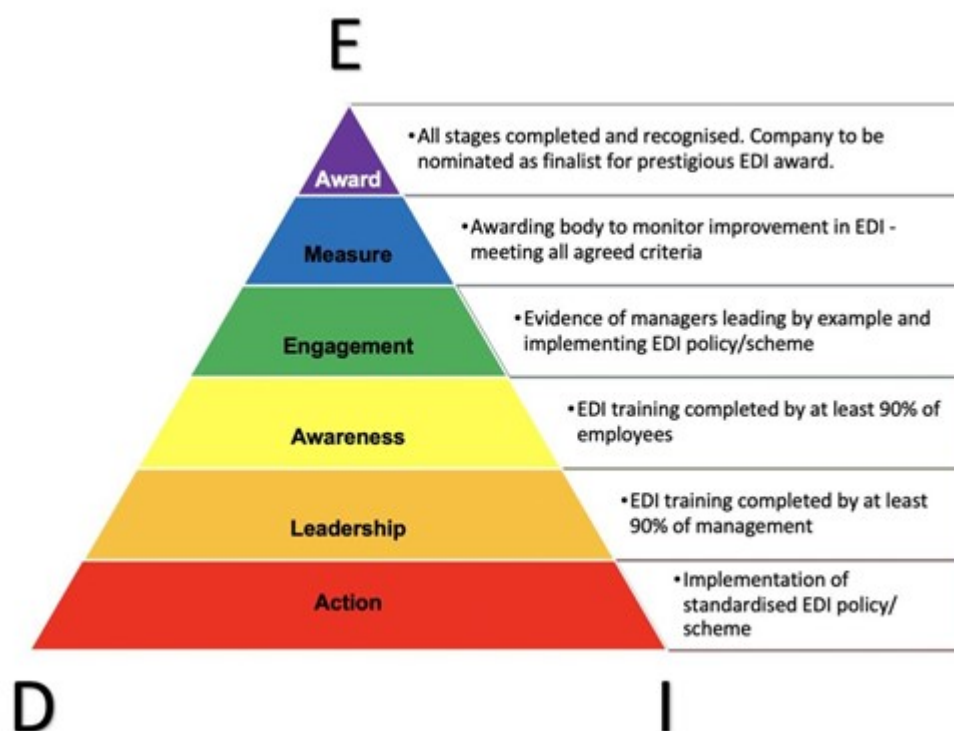


FIGURE 3: APM'S EDI FRAMEWORK

Others, such as the UK-based company People Insight⁸, propose an integrated framework for assessing one's achievements with respect to implementing and fostering EDI in their contexts

⁷ Available at: <https://www.wired.gov.net/wg/news.nsf/articles/Improving+equality+diversity+and+inclusion+of+the+LGBTQ+community+09042021162000?open>

⁸ Company website: <https://peopleinsight.co.uk/>

and organisations. Once again, the information provided is quite general, even if it goes beyond general nomenclature for pillars by proposing key questions to be addressed for each. According to their website, these are:

- Belonging: Do we have a culture of openness in which people can speak up and be themselves?
- Equity: Does everyone have equal opportunity, feel valued and rewarded?
- Leadership: Are senior leaders standing up for diversity and inclusion and role modelling the right attitudes and behaviours?
- Opportunity: Do people receive fair and respectful treatment? Are we zero-tolerant?
- Normative: Do we actively encourage/create diversity and have representation at all levels?
- Governance: Are people complying, or do we have incidence of bullying, harassment, and discrimination? How are we handling this?



FIGURE 4: PEOPLE INSIGHT'S EDI ASSESSMENT FRAMEWORK⁹

Those proposed above are just some examples, among many others. We reviewed more approaches from different bodies, organisations, and institutions until we reached saturation, i.e. until the review of new frameworks did not uncover new additional elements. The review covered approaches from universities, e.g. the IDEAL framework adopted by the University of Oregon¹⁰, from the education and teaching field, e.g. the one presented in (Dillard-Wright and Gazaway, 2021) for the American Nurses Association, and many (the vast majority) focusing on EDI in the workplace, such as those offered by consultants like Brighter Strategies¹¹, or by

⁹ Source: <https://peopleinsight.co.uk/belong-framework/>

¹⁰ Available at: <https://inclusion.uoregon.edu/IDEA>

¹¹ Available at: <https://www.brighterstrategies.com/blog/diversity-equity-inclusion-framework/>

the actual organisations such as the Ontario Trillium Foundation¹² or the Australian Neami Group¹³.

The analysis of these framework led to several conclusions:

- The vast majority of approaches available to-date refer to EDI in the workplace or at the organisational level. While these are useful to inspire the work in NGI (consistent with the objectives outlined in section 1 above), the scope is actually different.
- The EDI frameworks encountered focus primarily on the definition of pillars and on devising an EDI manifesto for the specific organisation, rather than proposing detailed measures and metrics for assessing and fostering EDI in a system.
- The frameworks reviewed focus primarily on management practices and leadership styles (Seijts and Milani, 2022), rather than actual best practices or specific actions that can be taken to foster EDI and/or to measure a system's performance against EDI metrics.

In light of these conclusions, the analysis shifted into clustering what the recommended (management) practices are. These are usually divided into building blocks which typically include capabilities. Collectively, these capabilities can be clustered into five categories:

1. Leadership and governance: this category underlines the need for high level support and commitment towards EDI in a given setting (typically an organisation). Some include the need to adhere to “inclusive standards”, without actually referencing what these standards are. Additional elements within this category include the presence of EDI at the Executive level, the establishment of relevant partnerships, and, importantly, the need to have a clear and measurable strategy in place.
2. Solid and timely responsive systems and policies: this second cluster covers aspects such as the need of integrating specific needs of underrepresented individuals in official risk management plans and strategies, responsive documentation system and technologies adaptable to everyone's needs and issues, and a feedback and service system responsive and inclusive of diversity factors.
3. Diverse culture and workforce, which, according to the definitions provided above, refers mainly to both diversity and inclusion. This typically includes aspects related to Human Resource management, hiring (or, in the case of NGI, selection) processes and criteria used in recruitment, recognising and valuing the expertise of individuals with diverse identities and backgrounds, and offering equal career opportunities and pathways.
4. Accessible services and opportunities: which focus mainly on training, professional development, use of accessible technology and environments, and the need to cultivate culturally safe places and spaces.
5. Co-design, emphasising the need to enable collaboration and engagement within and across all levels and diversity factors.

Finally, the majority of frameworks and approaches that were reviewed advocate for establishing an NGI EDI Taskforce, responsible not only for operationalizing and implementing the general principles presented above, but also for assessing and continuously evaluating the actions and their outcomes. Periodic assessment would allow, according to the literature, rapid

¹² Available at: <https://otf.ca/who-we-are/about-us/our-commitments/framework-diversity-equity-and-inclusion>

¹³ Available at: <https://assets.neaminational.org.au/assets/Resources/Neami-National/e092ab07ec/Diversity-and-Inclusion-Framework-Nov-2017.pdf>



learning and agility in the rollout of the overall EDI strategy. This activity will be led by the NGI4ALL.E WP4 NGI Accessibility and Inclusion - Diversity and Evangelise. The strategy for implementing it is presented next.



3 A STRUCTURED STRATEGY FOR EDI IN NGI4ALL.E

Once the key definitions and background knowledge had been collected and established (see previous section), the next step involved positioning these definitions within the scope and frame of the NGI programme. This means devising a framework outlining what are the action points for fostering EDI in this ecosystem, as well as the specific scope of work within each of these action points.

In doing this, the first step revolved around linking the definitions of equity, diversity and inclusion, as well as their relationships with one another, to the work conducted in this WP. This meant outlining the key overarching questions for each concept to be adopted as guidance in this work.

1. Working on increasing, promoting and fostering diversity in NGI encompasses the following questions:
 - How can we get more diverse people in the NGI community, NGI end-users, and NGI innovators?
 - How can we incentivise including diverse members and innovators?
 - Why aren't people of differing identities aware of NGI / members of the NGI Community / innovators in NGI?
2. Efforts to increase inclusivity is addressed in this work by the following questions:
 - What is the experience for individuals who represent minorities within the NGI ecosystem?
 - What barriers exist for people with marginalised identities to feel a sense of welcome, belonging, and appreciation?
3. With respect to equity, the key questions are:
 - How does equity support diversity and inclusion?
 - What systematic barriers exist that may limit or impede any diversity efforts NGI is taking?

While these questions serve as general guidelines, a more in-depth reflection is needed with respect to the areas of NGI where EDI is sought, and more specifically the areas of intervention foreseen in this work. This is required as the different concepts of equity, diversity and inclusion, apply differently to NGI if these are considered in relation to the NGI Community, its Innovators or end-users. In this case, NGI Innovators involve a bias compared to the community. While in the former the people involved are by definition software developers or IT experts, in the latter the presence of individuals and groups from different backgrounds would benefit the creativity and effectiveness of the overall Community. Also the potential areas of intervention for addressing or improving EDI would be different. For example, if we wanted to improve diversity and equity among NGI Innovators, actions could be potentially taken in the actual open calls, the submission process, or the evaluation criteria. Pursuing the same for the NGI Online Community would mean acting upon what actually happens within it as well as the communication strategies and the subscription process.

Because of these reasons, the approach taken in EDI-NGI is based on **5 working pillars** (with the overarching guidance of the questions above). On the one hand, (1) NGI Resources and Tools, (2) NGI Online Community, (3) NGI Innovators, represent three pillars whereby the

Analyse-Design-Implement-Evaluate cycle is undertaken (see section 1 and more details below) to increase NGI EDI performance. On the other hand, specific efforts are undertaken with respect to (4) engaging women in NGI and (5) involve end-users and grassroots communities also in the generation of future topics for the NGI agenda. For these last two pillars the approach is more operational and peculiar. This is aligned with the actual structure of the work package whereas the former three pillars are included in Task 4.1, while pillars (4) and (5) are the focus of Tasks 4.2 and 4.3 respectively. Consistent with this distinction, each pillar is tackled separately below.

3.1 NGI RESOURCES AND TOOLS

What are these? Why are these relevant?

NGI Resources and Tools include all online artefacts that allow individuals to engage with NGI and its RIAs. This pillar is relevant mostly to improve **equity**, i.e. to ensure that all channels and tools are understandable and accessible by everyone, i.e. that equal opportunities to be part of NGI are offered. In turn, this may lead to an increased **diversity** among community members and innovators as well as a more **inclusive** experience for everyone wanting to engage with NGI.

Identifying what tools are available was however not a trivial task. After validation achieved during the NGI4ALL.E General Assemblies, the following resources and tools are defined within the scope of this pillar:

- The NGI website.
- “Join NGI”: i.e. the digital assets and the resulting process for individuals to join the NGI Online Community, the NGI Map, and to subscribe to the NGI Newsletter.
- The Brand Guidelines available in the NGI Drive for innovators including the Innovators Toolkit, the NGI Templates and Graphics.

Objectives and key questions

The objective under this pillar is to ensure the maximum possible accessibility and understandability of NGI Tools and resources. The resulting question to be asked is therefore: are the NGI tools accessible and understandable by anyone? Are skills and language barriers minimised?

Analyse

The analysis phase revolves around reviewing the tools and resources listed above. Since most of these are in digital, online, format, the anchor for this analysis resides in the latest Web Content Accessibility Guidelines published by the W3C (version 2.1)¹⁴. These define web content as accessible when it meets four fundamental criteria according to which the content must be: (1) Perceivable, i.e. the information and user interface must be presented so that all users can perceive it; (2) Operable, i.e. usable in terms of both user interface and navigation; (3) Understandable, with respect to the information provided and the user interface; and (4) Robust, i.e. the content can be interpreted reliably by user agents, including assistive technologies. More specific guidelines (fourteen in total) are included within each of these categories. Furthermore, the analysis covers the issue of identifying missing languages, ensure that the tools do not ingrain any form of discrimination, and exploring skills and knowledge required to effectively use and understand the tools and resources. With respect to the latter, sources of evidence will be sought from the interviews carried out with NGI Innovators and community members respectively (see dedicated sections below).

¹⁴ Full guide available at: <https://www.w3.org/TR/WCAG21/>



Design & Implement

The analysis of NGI tools and resources will dictate what actions are most appropriate with respect to each of the three categories. In the proposal, we foresee two possible actions: (1) translation of content; and (2) addition and/or proposal for integration of new accessibility features to the online artefacts.

Evaluate

The goal here is once again to improve accessibility and understandability of online NGI Tools and Resources. These will be monitored and reported accordingly. Part of the interviews will focus on monitoring improvement, especially those conducted with end-users (see below). If possible, a survey to assess improvement will also be distributed to the members of the NGI Community and the NGI Innovators. Last, but not least, improvement will be demonstrated through adherence to well acknowledged standards such as the W3C Guidelines described above.

3.2 NGI INNOVATORS

Who are they? Why is it relevant?

NGI Innovators include all those individuals, teams, and organisations that received funding across the different NGI RIAs. In this WP, the work conducted in this pillar is relevant for ensuring **diversity** of NGI Innovators across a number of factors which are reflected upon below. In addition, engaging with innovators can also shed light on how inclusive their participation in NGI actually is, across their experiences with the open calls, and others such as participation at NGI events and/or in the ambassador programme.

Objectives and key questions

The main objective of this pillar is to understand the level of diversity across all NGI Innovators and act accordingly to foster engagement and participation among those groups that are found to be underrepresented. The work is therefore divided in two main stages: (1) analysing the innovators to identify underrepresented groups; (2) target those groups subsequently. By the end of the project the objective is then to achieve a more diverse range of applicants to the NGI open calls, and a more diverse range of selected innovators.

Analyse

Before proceeding with the actual analysis, a key reflection had to be conducted about what diversity factors are relevant for the NGI Innovators. As stated in section 2.2 above, diversity factors can be potentially endless. When talking about diversity in groups of individuals the factors generally considered are: culture, ethnicity, gender identity, sex, sexual orientation, language, country, nationality, race, age, religion, physical and intellectual ability, socio-economic status/ caste, belief system, civil state, parental status, pregnancy, appearance, education level, work experience, work type (among others). However, two important considerations must be made in the case of this work.

First, **not all diversity factors are relevant given the context of analysis**. In other words, the questions we asked ourselves to select the relevant ones were the following: where may under representativeness in the group of NGI Innovators come from? and, what factors may be discriminatory in the communication, application, and selection of innovators? With respect to the former, under representativeness may come from:

- Design of open calls in terms of both topics and process.
- Gaps in outreach when disseminating open calls.



- Biases evaluation criteria, process, and/or committee.
- Gaps in accessibility of communication and understandability of information (covered in pillar 1).
- Strict requirements for eligibility and participation.
- Language barriers.

Concerning the question about factors, it must be considered that most of the diversity variables listed above are not relevant mainly because this information was not available and therefore did not lead to any potential biases. For example, religion of applicants, their ethnicity, or sexual orientation are not considered potential source of underrepresentation among the NGI Innovators. The diversity variables selected, and validated at the NGI4ALL.E General Assembly, are:

- Country of the team / individual / organisation.
- Gender composition.
- Discipline / teams' background (seeking multidisciplinary).
- Focus of the solution.
- Type of end-users to whom the solution is oriented.
- Entity / group funded (public, private, NGO / foundation / association, natural person or group, universities and research centres).

Importantly, these factors are relevant for both applicants to the open calls and those innovators finally selected.

The second important consideration refers to the fact that from the analysis conducted to-date (November 2022) it appears that **most of this information is not available** across the different RIAs. In principle, the NGI Innovators Database¹⁵ should include all funded innovators as well as information about: title, the innovators website, a description of the solution, a text explaining relevance to end users, contact information, country, NGI project where the funding came from, keywords, status, and category of the solution. However, we soon realised that this information is highly scattered and largely incomplete. For example:

- Of the 737 NGI Innovators included, information about the country is missing for 165 of them.
- No information is provided about applicants.
- No information is provided about gender composition of the teams nor about their background.
- A significant number of websites provided (when provided) are either not active or simply link to the RIAs' website, thus making this avenue also impractical to collect information.

The strategy has shifted then to look for relevant information across the NGI RIAs' own content. In particular, the RIAs' news on social media, public deliverables and actual websites provided more detailed information (also in some cases about the applicants - i.e. a relevant element in this work). We therefore search this information tackling each of the fourteen NGI RIAs individually. This was found to be a good strategy as, for example, information was collected about 905 funded innovators (compared to the 737 available from the database). It is noted that in several cases the information was compiled from investigating, for instance, the organisation type and the country of the Innovators from searching through the information

¹⁵ Available at: <https://www.ngi.eu/discover-ngi-solutions/>?

publicly available for the specific solution. For example, with respect to NGI Assure, of the 122 solutions funded, information about countries and organisation type is not available for 20 solutions, we estimated this information for 48 of these, and only 70 are available in the NGI Innovators Database.

To summarise this first stage of analysis, the following table is proposed indicating what information is available for each (currently ongoing and past) RIA. In the table, green is assigned to those categories where full information is available, yellow when the information is partial or incomplete, and red when the information is missing. It is noted that the table includes the data generated through researching each of the innovators' websites and other publicly available content.

NGI RIA	Info on gender	Info on applicants	Funded countries	Funded org. type
NGI Zero Review	Started in August 2022			
NGI Zero Entrust	Started in August 2022, first open call ongoing			
Trublo	Red	Red	Green	Green
NGI Assure	Red	Red	Yellow	Yellow
Ontochain	Red	Green	Green	Green
(NGI Essif-Lab)	Red	Red	Green	Green
(NGI Trust)	Red	Red	Green	Green
(Ledger)	Red	Yellow	Green	Green
NGI Atlantic.eu	Red	Yellow	Yellow	Yellow
NGI Pointer	Red	Red	Yellow	Yellow
NGI Dapsi	Red	Green	Green	Green
(NGI Zero Discovery)	Red	Red	Yellow	Red
(NGI Zero PET)	Red	Red	Yellow	Red

(Fed4Fire+) ¹⁶				
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TABLE 1 : SUMMARY OF INFORMATION AVAILABLE ACROSS NGI RIAs¹⁷

Based on the gaps identified in this analysis, an overarching document has been created indicating, in detail, what information is missing from each RIA. From here, we are currently involved in arranging meetings with each RIA’s coordinator to: (1) ask for the missing data and information; and (2) explore their perceptions on the potential causes for eventual underrepresented groups.

The result of this analysis (which completeness and accuracy will obviously depend on the availability of information) will shed light on whether underrepresented groups exist and what diversity factors are associated with these.

Design & Implement

Importantly, a resource exists and is made available through the NGI Drive for guiding the partners of the various RIAs about what data to collect for each open call and how to report it (see figure in the next page). Our role will be to stimulate RIA’s relevant partners to adopt this structure and adapt the open call process (specifically the data requested) accordingly.

Actions will be then taken throughout the project according to the results of the continuous analysis. In general, we believe we can act upon:

- Explore who is underrepresented and identified examples of potential actors in Europe.
- Conduct 10 semi-structured interviews including both innovators and those actors related to groups that are currently underrepresented to understand why they are not present, what would motivate them to participate and to allow understanding needs and perspectives of these groups, as well as potential accessibility barriers.
- Provide recommendations to the NGI RIAs for the overall open call process to be more consistent with EDI principles.
- Recommend geographically strategic hubs to be leveraged to amplify communication and dissemination of future open calls in places where so far outreach and success (i.e. number of funded proposals) has fallen short.
- Assist with targeted communication for future open calls addressing diversity challenges identified.
- Contribute towards a wider and more diverse NGI community among which future calls can be promoted and disseminated (from effort in NGI community - see next subsection).
- Propose new topics to extend diversity in participation in NGI RIAs (from the effort planned with end-users in T4.3, see below).

These actions can be mapped across the potential antecedents of diversity-related issues. As a consequence, the actions to increase diversity of NGI Innovators can be related to the different building blocks of the RIAs’ open calls. In this way, biases may come from three different phases: their design, their diffusion and dissemination, and the evaluation process.

¹⁶ Data about the last open call is missing. Waiting for last deliverables to be published.

¹⁷ In brackets those projects that are completed



The table below outlines for each of these, the relevant dimensions of EDI, the objectives, and the planned actions (see Table 2).

	NGI PROJECTS - OPEN CALL METRICS TO ASSESS IMPACT OF COMMUNICATION
<i>EXAMPLE</i>	
NO OF APPLICANTS (TOTAL OF ALL CALLS) with breakdown per call (if more than 1)	Total 250 (160 first call - 110 second call)
APPLICANTS' COUNTRIES OF ORIGIN	10% FRANCE, 5% UK, 60% SPAIN, 30% ITALY ETC ...OTHERS INCLUDING: XXXX
GENDER BALANCE APPLICANTS	65% MALE; 35% FEMALE
APPLICANTS' ORGANIZATION TYPE	35% START UP, 20% SMEs 5% INDUSTRY, 45% RESEARCH CENTRE, 5% UNIVERSITY
TECHNOLOGY DOMAIN	BLOCKCHAIN
HOW DID APPLICANTS KNOW ABOUT THE CALL? LIST THE TOP 5 (if you did not collect this info, please do so in the future)	Social media: FB/Twitter/ LinkedIn NGI portal/ Your project's website Attending event (which event) Mailing list (which one) EC portal NGI Newsletter etc
NUMBER OF GRANT WINNERS (TOTAL OF ALL CALLS) - no need to breakdown per call	25
LINK/s WHERE TO FIND ALL THE GRANT WINNERS DESCRIPTION	www.abcde.eu
GRANT AMOUNT (EURO GRANTED PER WINNER)	50,000 EURO
GRANTS AMOUNT (TOTAL CALLS)	200,000 EURO
WINNERS' COUNTRY OF ORIGIN	65% NETHERLAND, 20% PORTUGAL, 5% SLOVAKIA
WINNERS: GENDER BALANCE APPLICANTS	55% FEMALE, 45% MALE
WINNERS' ORGANIZATION TYPE	35% START UP, 20% SMEs 5% INDUSTRY, 45% RESEARCH CENTRE, 5% UNIVERSITY
NO OF CALLS IN 2020 AND PLANNED TIMELINE	3
TOTAL AMOUNT CALLS 2020	50,000 EURO
OTHER RELEVANT INDICATOR YOU WOULD LIKE TO ADD	

FIGURE 5: TEMPLATE FOR RIAs' DATA COLLECTION ABOUT INNOVATORS



Building Blocks	EDI	Objectives	Actions and outputs
Design of Open Calls	Diversity Equity	<p>Promote the design of open calls in a way to foster diverse applicants.</p> <p>Propose new topics from societal demand for the internet of the future.</p>	<p>Guidelines for EDI consistent design (language, tone, terminology, structure).</p> <p>Taxonomy of future topics from end-users engagement (T4.3).</p>
Diffusion of Open Calls	Diversity Equity	<p>Ensure underrepresented groups are reached and aware.</p> <p>Foster women engagement in NGI.</p>	<p>Target new channels and support in dissemination among them.</p> <p>Engage women groups and foster their participation in the open calls (T4.2).</p>
Evaluation of Open Calls	Diversity Inclusion	<p>Include EDI metrics in the evaluation of proposals</p>	<p>Design and promote an EDI consistent evaluation rubric.</p> <p>Guidelines for EDI consistent evaluation process.</p>

TABLE 2 : NGI INNOVATORS ACTION FRAMEWORK ACROSS KEY STAGES OF THE OPEN CALLS

Evaluate

The ultimate goal of the work conducted under this pillar is to increase diversity among NGI Innovators. Evaluation will be concurrent with the actual open calls. The task will therefore be about continuously monitoring the NGI Innovator database (if its use will be improved) and the information about applicants and innovators (when available) and conduct multiple analysis/design/evaluate cycles accordingly.

3.3 NGI ONLINE COMMUNITY

Who are they? Why is it relevant?

NGI Online Community members refer to all those individuals who are part of the NGI Online Community. The justification for relevancy is similar to the one provided for innovators, i.e. the goal for this group to be as representative as possible. As a consequence, like in the case of innovators, the work within this WP aims at understanding and subsequently increasing **diversity** in the NGI Online Community. Also, from engaging and collecting feedback from community members, the analysis to be undertaken can potentially outline how **inclusive** the experience of being part of the community actually is.

Objectives and key questions

Once again similar to the work on NGI Innovators, the main objective of this pillar is to understand the level of diversity within the NGI Online Community and act accordingly to foster engagement and participation among those groups that are found to be underrepresented. The work is therefore divided in two main stages: (1) analysing the database to identify

underrepresented groups; (2) target those groups subsequently. By the end of the project the objective is then to achieve a more diverse range of community members, and, if needed and possible, improve their experience making it more inclusive.

Analyse

When planning for the analysis, in a similar way as for the previous pillar, one fundamental question we asked ourselves was: where may the underrepresentation of certain groups come from? This means reflecting on where we could potentially act to increase diversity among the members. We concluded that the main potential biases or sources / reasons for underrepresentation include:

- Lack of perceived usefulness for specific groups, which may not perceive any value of joining the NGI Online Community.
- Gaps in communication and dissemination, and therefore scattered outreach and community promotion.
- Barriers from the process to join/subscribe (included in pillar one above).
- Language barriers
- User experience issues.

Like in the case of NGI Innovators, only a number of diversity factors appear to be relevant for this work. The diversity variables selected, and validated at the NGI4ALL.E General Assembly, are:

- Country of the member.
- Gender.
- Discipline / background, to extend groups of interests of NGI beyond IT experts and developers.
- Interest in NGI.
- Educational level.
- Employment situation.
- Age or age range.

Clearly, the potential of the analysis is dependent on the availability of information about the community members. At the time of writing this report (November 2022), the information we have at our disposal is limited and does not allow fully meeting the objectives of identifying gaps in terms of diversity across all the factors listed above. The main challenges revolve around a lack of data to be inserted when subscribing to the community (which limits the potential knowledge about the demographics and types of community members) and compliance with GDPR which may limit our own access to the actual information provided.

At the moment the information available includes the following details about the 1,374 members currently included in the database:

- All first names, from where we are deducing the gender of each member in a very time consuming analysis exercise.
- The manifested interest of each member (multiple choices), considering that 84 appear as either “null” or “undefined” and 100 reported “other” without expressing what this entails.
- The organisation name, assuming that where “null” is reported this refers to natural people subscribed to the NGI Community.



- The organisation type across: SME / Startup; Entrepreneur; NGO, Accelerator / Incubator; Developer; Corporate; Investor; Research Organization; University; Public Organization; and Other.
- Whether the member: authorised data privacy conditions; agrees to appear on the NGI Map; and agrees for being periodically sent the NGI Newsletter.

Currently we are involved in the gender analysis and the plan is to infer (from the organisations' names) what countries are represented (and what are underrepresented) in the current NGI Online Community.

Design & Implement

As for the previous pillar, the specific actions to be taken will be defined as a result of the analysis. In general, the effort will foster outreach and aim at increasing presence (and participation) as well as diversity in the NGI Online Community.

First, and most importantly, we will recommend and propose new data entries required for those subscribing to the community. In light of the analysis results, this is fundamental for enabling a consistent monitoring of diversity variables to be then able to act accordingly through targeted communication and specific efforts to continuously identify and subsequently engage underrepresented groups in the community.

The other actions foreseen include:

- Identify actors in Europe related to those groups that result to be underrepresented.
- Conduct 10 semi-structured interviews to both existing community members and to those actors identified to understand their needs and perspectives as well as why they are not part of it and what would motivate them to participate.
- Targeted communication and promotion to those underrepresented groups' channels.
- Recommendations for improvement in the Community design and processes for it to be more valuable for members, easier to access, and to provide a more inclusive experience.

To enable a more effective monitoring and improvement of inclusiveness in the community, we will leverage the periodic surveys conducted among community members. We will propose additional questions to investigate the needs and desires of community members as well as to get their feedback. This data, the one collected through the interviews, the mapping exercise as a result of the analysis, and the data generated through the work with women and end-users (see respective subsections below), will be the main data feeding into this work.

Evaluate

The main goal in this pillar is to increase diversity of NGI Online Community members and foster an inclusive experience. Evaluation will be carried out through periodic analysis of the NGI Online Community database (if access is permitted, or, otherwise, through obtaining aggregated statistics) which will inform iterative design - implement - evaluate cycles.

3.4 WOMEN IN NGI

A specific task (T4.2) and objective within this WP revolves around ensuring increased participation of women researchers and innovators into the NGI.

The objective of this pillar is clear: engage more women across the NGI Innovators and Community and actively promote their work and visions. Consistent with the approach taken so far, the relevant building blocks refer to:

1. Design of open calls, where the objectives will cover including gender information in the application process and gender-specific elements in the actual calls, align the topics of the calls to those of interest of the existing women innovators in the context of future internet.
2. Diffusion of open calls, where the focus is placed on contributing towards an increased reach of the open calls' dissemination to women individuals and groups thus fostering their participation in the RIAs.
3. Evaluation of the open calls, where an effort will be made to adapt evaluation criteria and committee towards including scores related to gender, as well as women representation in the various evaluation committees.
4. NGI Online Community to specifically foster and promote women's subscription to the community and their participation.

In addition, specific objectives are formulated towards promoting NGI women innovators.

- Conduct 10 interviews to women entrepreneurs (both innovators and those identified as part of the mapping exercise) and generate women's promotional material (e.g. in the form of video interviews, podcasts or articles) to be then published in a dedicated section of the NGI website.
- As part of NGI events, organise dedicated sessions of Women in NGI to enable promotion and visibility of women-led ideas and solutions.
- Ensure significant representation of women in the NGI Ambassadors Programme.

As for the strategy for this pillar, we first identify and approach both women that are already part of NGI (ideally women Innovators) and other existing groups of women innovators and researchers that are not (yet) part of NGI. The work is then twofold. On the one hand, the analysis of the NGI Innovators will (if data will be made available on gender) uncover potential women involved in NGI to target for interviews and promotion as well as potential candidates for the Women in NGI sessions. On the other hand, a more open mapping exercise is being conducted to identify individuals or groups of women researchers and entrepreneurs involved in aspects concerning the future of the internet. So far, we started this mapping exercise and, in parallel, we developed a living document with the details about each women-led communities, associations, and organisations involved in NGI-related topics. At the time of writing this report (November 2022), we contacted seven different communities of the fifteen preliminarily discovered. Individual introductory meetings are scheduled with them starting from the first week of December. As part of these, we will first give an overarching presentation of what is NGI and the NGI programme as a whole. Second, we will discuss their interests and propose appropriate avenues for them to engage with NGI (e.g. participation in NGI events, application to specific open calls of interest, engagement in the NGI Online Community, video-interviews to promote their vision and work).

This first series of meetings will be useful to test the process and the effectiveness of the approach in attracting women to NGI and to learn and change it accordingly.

Furthermore, women have been targeted, engaged, and upon agreement, proposed to be included in the list of candidates for this semester (in alignment with WP3). Finally, a Women Innovator Award is also included as part of the NGI Awards Programme (WP2) to further contribute towards women engagement and visibility in and through NGI.

3.5 END USERS AND GRASSROOTS COMMUNITIES ENGAGEMENT

The last pillar in this work relates to end users' involvement. Like for Women in NGI, a dedicated task is assigned to this effort, scheduled to start in 2023.

This effort is underpinned by two distinct objectives.

1. Raise awareness of NGI solutions and showcase their value for end users;
2. Include citizens' voices in the NGI evolution.

The former, i.e. the most immediate, is about communicating solutions developed by the NGI Innovators in a way that is accessible and understandable by anyone, i.e. not only assuming an IT-savvy audience. In this way, some available material was found in terms of the inclusion of description for some (about 400) NGI solutions entitled "end user relevance". This is typically combined with a more technical explanation. The work conducted in this direction will therefore focus on generating communication material from the available information while fostering and helping RIAs and innovators to use more accessible language when describing their solutions. In addition, following the same accessible and understandable approach, a video will be produced to promote and showcase the novelty and value of NGI solutions.

The latter represents the main and most substantial focus of this task. The first step to start in 2023 is about identifying and mapping existing communities either directly working on digital rights or interested / active / curious about aspects related to the internet and its future evolution. This mapping exercise serves as a foundation for the work conducted here. In general, the objective is to actively engage communities and end-users in NGI. All in all, engagement and involvement is achieved in three ways, or underpinned by three final outputs from this work:

1. Include representatives through **active participation both at NGI events** and as part of the **NGI Ambassadors Programme**. Key representatives of the communities mapped will be approached and invited to participate. Incentives will be represented by the opportunity for them and their communities to gain visibility as well as networking and, not neglectable, the opportunity to pursue their ideas and objectives.
2. Generate a **taxonomy of topics** for future NGI calls. The taxonomy will be generated from engagement with these communities and specifically from investigating together with them what are their needs, desires, and values and how can these be aligned with the EU agenda towards NGI. With respect to the process, two sources of data will be leveraged for generating this taxonomy. First, 20 representatives of the communities mapped will be interviewed. The interviews will be semi-structured and will allow for the emergence of desires, needs and topics to be included in the future agenda. Second, the taxonomy will be refined and validated through 3 participatory workshops where topics will be extended to actual scenarios. The methodology followed for building this taxonomy adheres to Nickerson et al. (2013)'s process, and specifically its empirical-to-conceptual approach (i.e. an inductive effort to generate the taxonomy from the bottom up considerations collected through engaging with the communities). The final result will then be the aforementioned taxonomy which represents the input enabling the inclusion of the societal view into the development of the internet of the future.
3. Gather **perspective of the younger generations** and promote them through the generation and dissemination of an audiovisual resource. To do so, 2 participatory workshops with schools will be carried out. The video will be created as part of these sessions, which will be built upon the taxonomy generated as part of meeting the previous objective.

All in all, Task 4.3 (it is noted that this task has not yet started at the time of writing this deliverable) will contribute to all three main concepts included in this work. First, diversity will be fostered towards the active inclusion of end-users and communities in NGI, both as part of



NGI events and as NGI Ambassadors. Second, using more accessible language and co-creating dissemination and promotional material (e.g. the videos) with end-users and active communities will contribute towards equity, and particularly towards decreasing the barriers for engaging with NGI-related content. So far, such content is designed primarily for individuals and organisations with significant IT knowledge and experience. Third, the generation of the taxonomy contributes to an increased inclusion in NGI. This is justified by the fact that the visions, desires and needs of end-users and communities will be extracted and valued for the evolution of the program, i.e.c consistent with the definition assumed for inclusion in this work.

4 EDI WORK PLAN

The previous chapter presented the design of the strategy for EDI in NGI, building upon the review of the key concepts and associated approaches presented in section 2. The work has been organised across five, interdependent, pillars. These interdependencies are mostly observed between Resources and Tools, Innovators, and Community and the two dedicated tasks included in the WP focusing on women in NGI and end-users respectively. For example, engaging women in NGI will also focus on increasing their presence in the NGI Community as well as their participation in open calls and entails fostering considerations of women participation as part of the evaluation process of submitted proposals to the various open calls (i.e. belonging to the NGI Innovators pillar).

In summary, the work across the five pillars presented is expected to be iterative and to contribute towards all elements at the core of this WP: equity, diversity and inclusion. The main actions presented in the previous section are related to these three concepts in the summary figure below.

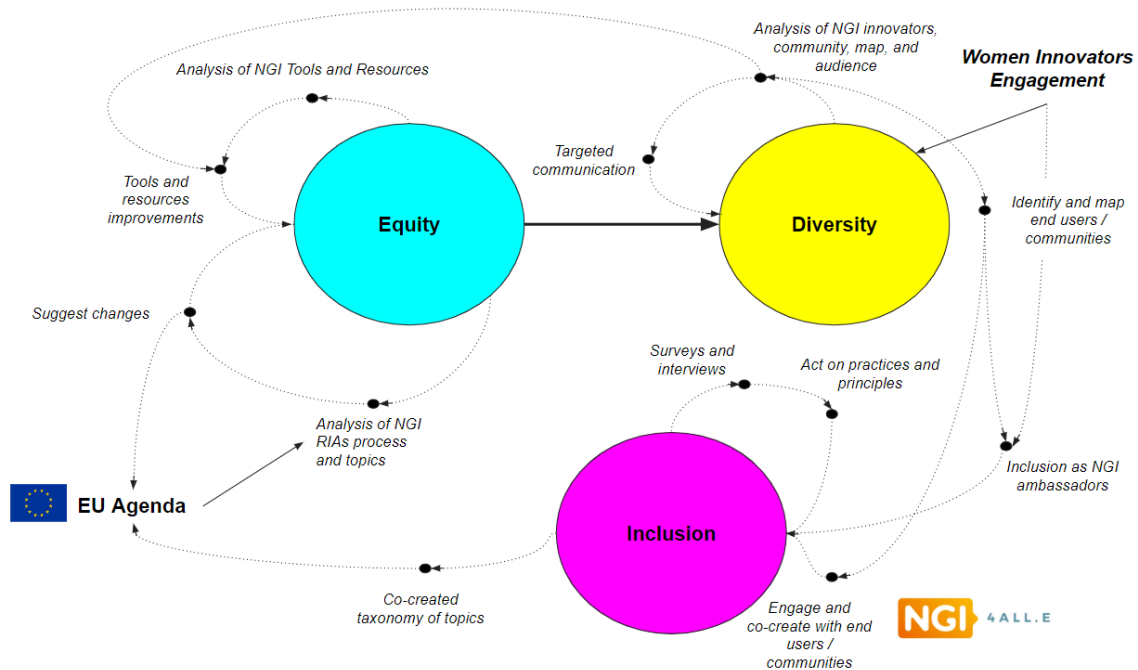


FIGURE 6: OVERARCHING VIEW OF ACTIONS AND THEIR CONTRIBUTIONS TO EDI IN NGI

Prior to concluding this report, the tasks involved in this effort are here presented together with a timeline for their implementation. This presentation follows the structure of the WP, i.e. is provided through adding consistent sub-tasks to those already outlined in the proposal, together with the contributing partners, and the months of the project in which each is scheduled to start and to finish (it is noted that this deliverable is being written during M5, i.e. November 2022).

Task 4.1 includes all the work conducted with respect to the first three pillars through cycles of analyse-design-implement-evaluate as presented in section 1. Consistent with the strategy presented in the previous section, Task 4.1 has been broken down into 12 subtasks as summarised in the table below.

<i>Main Task</i>	<i>Type</i>	<i>Resp</i>	<i>Others involved</i>	<i>Starts</i>	<i>Finishes</i>
Task 4.1 NGI Equity Diversity and Inclusion	Overall Task	IFC	MAR, FBC	M1	M36
	EDI Literature review	IFC	IFC	M1	M4
	Review existing practices and approaches to EDI	IFC	IFC	M2	M4
	First framework version draft to be circulated	IFC	IFC	M3 (Kick off)	-
	Analysis of NGI Innovators	IFC	IFC, MAR	M3	Continuous
	Analysis of NGI Community (including periodic surveys)	IFC	FBC	M3	Continuous
	Analysis of NGI Resources and Tools, and recommendations	IFC	IFC	M5	M8
	Design of new information gathering system for both open calls applicants and subscribers to the community	IFC	All	M6	M7
	Liaise with NGI RIAs	IFC	All	M6	M36
	Mapping and engaging actors belonging to underrepresented groups	IFC	All	M7	M16
	Conduct semi-structured interviews to under-represented groups (in Innovators and Communities) and qualitative analysis.	IFC	IFC	M8	M18
	Continuous communication and engagement to attract underrepresented groups	IFC	All	M6	Continuous
	Evaluate implementation of NGI EDI measures to adjust the approach and work plan accordingly.	IFC	All	M6	M12-M18-M24-M30-M36

TABLE 3 : TASK 4.1 SUBTASKS AND TIMELINE

With respect to Task 4.2, the work towards increasing engagement and participation of women in NGI is drawn upon nine interrelated subtasks. As presented above, at the moment the generation of the underpinning database is ongoing and the first seven open meetings are scheduled for December 2022. As gender information about NGI Innovators is not available, women representatives within this cohort will be explored during the liaison meetings to be



held between M6 and M8 with the NGI RIAs’ coordinators. A cornerstone here will revolve around the close collaboration with those partners responsible for the NGI Events as well as for the NGI Ambassadors Program. Regarding the latter, women have already been proposed and are currently being selected by the dedicated committee. Further meetings will be organised with the women entrepreneurs and communities identified to both foster their engagement in both the open calls and the NGI community, and for generating the content to be then included in the dedicated section of the website. The table below provides a summary of these subtasks together with their expected timing.

<i>Main Task</i>	<i>Type</i>	<i>Resp</i>	<i>Others involved</i>	<i>Starts</i>	<i>Finishes</i>
Task 4.2 Women Innovator Engagement	Overall Task	IFC	ALL	M1	M36
	Map and contact women in tech/women in Internet kind of initiatives	IFC	All	M1	M36
	Map and contact women from NGI Innovators	IFC	All	M6	M9
	Propose and engage women for NGI Ambassadors Program	IFC	FBC	M3	Periodic every 6 months
	Co-organizing Women in NGI Sessions	IFC	All	In conjunction with NGI events	
	Open meetings with women entrepreneurs and researchers (individuals and communities)	IFC	IFC	M6	M36
	Carry out 10 semi-structured interviews and qualitative analysis	IFC	IFC	M8	M18
	Liaise with NGI RIAs to promote women innovators and seek better gender balance	IFC	ALL	M6	Periodic monitoring in alignment with T4.1 (NGI Innovators pillar).
	Continuous communication about NGI opportunities and ways to engage	IFC	ALL	M8	M36
	Content generation (video and articles) for the <i>Women in NGI</i> section of the NGI portal.	IFC	ALL	M8	M36

TABLE 4 : TASK 4.2 SUBTASKS AND TIMELINE

The last task included in this EDI effort refers to Task 4.3, devoted to actively engaging end-users and grassroots communities as well as to generating the taxonomy for contributing to the future EU-NGI Agenda. Specific actions for this task are scheduled to start in M6. (December 2022) So, no specific actions have been implemented yet beyond the design of the



overall strategy. As done for the previous two tasks, a summary table outlining all subtasks and their timings is proposed below.

<i>Main Task</i>	<i>Type</i>	<i>Resp</i>	<i>Others involved</i>	<i>Starts</i>	<i>Finishes</i>
Task 4.3 End users Involvement	Overall Task	IFC	MAR	M6	M36
	Map grassroots Internet communities working on digital rights and engage	IFC	All	M6	M36
	Invite community representatives at NGI Events	IFC	All	In conjunction with NGI events	
	Propose and select community representatives for ambassadors	IFC	All	M8	Periodic every 6 months
	20 semi-structured interviews to end-users and qualitative analysis	IFC	IFC	M8	M14
	Carry out 3 participatory workshops	IFC	All	M12	M18
	Taxonomy development	IFC	IFC	M10	M24
	Continuous development of accessible content and dissemination	IFC	All	M8	M36
	Engage schools and carry out 2 workshops with students	IFC	IFC	M14	M18
	Map grassroots Internet communities working on digital rights and engage	IFC	MAR	M18	M24

TABLE 5 : TASK 4.3 SUBTASKS AND TIMELINE

These three tables above were generated to operationalise the strategy designed for EDI in NGI presented in section 3. It is noted that the timing of the different subtasks is provisional and may be changed to address unforeseen needs or priorities, or based on the learning achieved during the process or during the periodic evaluation efforts planned. Also, the calendar of the upcoming open calls will dictate the timing of specific actions.

In terms of formal reporting, three deliverables overall are established from this WP:

- Deliverable 4.1, NGI Equity Diversity and Inclusion Work Plan (i.e. this document), due on M6 - i.e. December 2022;



- Deliverable 4.2, NGI Diversity and Inclusion Report, due on M18 - i.e. December 2023: this document will be dedicated to a midterm reflection on the engagement activities conducted, the outputs generated and those under development as well as any other required change of the work plan to address any potential issue or change induced to the original one presented here.
- Deliverable 4.3, NGI Diversity and Inclusion Final Report, due on M36 - i.e. June 2024: this will provide a final reflection on the overall work conducted as well as specific insights on what techniques employed have been the most effective. Lessons learned will be compiled and outlined too.



5 CONCLUSIONS

Equity, Diversity and Inclusion-focused and dedicated activities have become an integral part of the work and approach followed and promoted by the NGI Outreach Office. This deliverable reports on the actual work plan and the associated strategy designed for fostering principles of equity, diversity and inclusion across several elements of the NGI programme. This work is led by WP4, but has been closely synchronised with the rest of the activities across all other work packages.

First, this report provides an analysis of the extant literature on these three complex topics. While it shows how these are typically used interchangeably and that their operationalization is very much context-dependent (and should be investigated further in the related literature), a definition for each key concept adapted to the NGI context and planned impact has been derived and presented.

Second, the strategy to address EDI within the NGI has been presented across five pillars of action. These include the NGI Resources and Tools (to promote equity), the NGI Innovators, the NGI Online Community (to promote diversity and inclusiveness), and the specific efforts on Women in NGI and on engaging grassroots communities and end-users respectively (both addressing diversity and inclusiveness). For each of these pillars, a strategy has been designed and presented across four critical phases -of analyse, design, implement, and evaluate. Finally, a breakdown of each task together with the associated timing for implementation has been provided.

Importantly, the work to be carried out is very much dependent on the availability of data and level of responsiveness/collaboration of the various NGI stakeholders, including the NGI RIAs (or intermediaries), the NGI innovators, as well as the EC and other organisations that will be consulted/involved - including media players. As argued above, the next planned activities led by WP4 will focus on designing and fostering adoption of information gathering techniques and protocols, especially with respect to the Community and the RIAs' Open Calls (both applicants and funded innovators). As a result, we expect that all NGI RIAs will gather the information required to assess diversity of applicants and innovators across the NGI open calls (see Figure 5 above). Concerning the NGI Online Community, as shown above, the current level of information about members does not allow for a meaningful diversity and inclusiveness analysis. These new protocols will ensure that (e.g. when a new member subscribes), relevant information about their identities is collected.

In close collaboration with the other WPs as relevant, WP4 will therefore focus on:

2. **Generating protocols** for data collection from community members and innovators and **monitoring** (and applicants to the open calls): i.e. creating the protocol for collecting the data required for a consistent EDI analysis and transfer to relevant partners (for the community) and RIAs (for innovators and applicants). This data will allow monitoring the evolution of diversity variables among community members and innovators as well as inclusion variables (through the surveys and interviews).
3. **Engage** and enable active involvement of end-users and grassroots communities, as well as create new channels and promotion for involving women across different elements. Also, through engaging these groups, this work will involve the production of dedicated multimedia content to promote the vision and work of both women and the grassroots communities engaged. This engagement effort will also include tailored interventions with targeted communication and actions to engage those groups that appear to be underrepresented over time from the monitoring exercise.

4. **Influence** the RIAs' processes and specifically the design of open calls as well as their evaluation criteria and procedures through EDI-based recommendations. Recommend and foster redesign of those tools and resources that will appear to be not aligned with the international guidelines and standards for accessible content.

Concluding, the effort in this WP is aligned with and being informed by other relevant actions across other WPs within NGI4ALL.E. Specific attention is being given to the ongoing Communication Audit as well as the overall communication and outreach strategy (WP3).

As a result of this work, we foresee NGI as a more accessible, inclusive, and societally relevant programme and ecosystem.

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