# IEMA Written Submission & Consultation Response

Requiring mandatory climate-related financial disclosures by publicly quoted companies, large private companies, and Limited Liability Partnerships (LLPs) - May 2021

# About IEMA

IEMA is the professional body for those people working in environmental management and in corporate sustainability roles. IEMA's growing membership of over 17,000 professionals work at the interface between organisations, the environment and society in a range of critical roles (for example from Sustainability Directors through to Climate Change leads and in consultancy and advisory roles). We also work with a range of corporate partners (over 200). Our professional members are active across all sectors in the UK, for example from construction and manufacturing through to logistics, facilities, and across financial, retail, food, consultancy and the wider service and public sector.

# **Executive Summary**

IEMA makes the following headline comments and recommendations within our consultation response;

- We support the overall direction of the Government's intent to bring in a mandatory requirement for businesses to disclose climate related financial risks (which we also note will in time be beneficial to business transition and continuity).
- II. We note and do not support the Government's intention to exclude scenario analysis from the requirements. Although scenario analysis can be complex, it is fundamental to transparent risk disclosure.
- III. We propose that requirements are phased and well signalled, helping businesses to prepare, implement and to benefit from the disclosures and enhanced information. This should be through a road-map approach.
- IV. We support the policy direction to extend energy and carbon reporting into scope 3 emissions, but given the complexities of scope 3, we propose that this requires further development and consultation.
- V. We believe there are some opportunities to further support businesses through better use and updating of existing Government information and guidance and we provide examples in our response such as connecting with CCRA3 and Environmental Reporting Guidance.
- VI. We propose that Government reconsiders and strengthens its stated enforcement approach and considers the use of allocating a Board level responsibility on climate risk.
- VII. We recognise the skills gap in achieving good quality disclosures and advovate the use of multi-disciplinary teams that incorporate sustainability alongside other professionals.

IEMA is supportive of the Government's intention to mandate climate-related financial disclosures by publicly quoted companies, large private companies and Limited Liability Partnerships (LLPs). We agree that to support the transition to net zero, it is important to ensure that companies with a material economic or environmental impact or exposure assess, disclose, and take actions against climate-related risks and opportunities. We recognise that such risks to businesses, although recognised by many global business leaders at Davos World Economic Forum are still seen as distant by many businesses. The case therefore for mandating business reporting on medium to longer term risks is strong and will ultimately assist business survival and transition.

"Among the highest likelihood risks of the next ten years are extreme weather, climate action failure and human-led environmental damage; as well as digital power concentration, digital inequality and cybersecurity failure. Among the highest impact risks of the next decade, infectious diseases are in the top spot, followed by climate action failure and other environmental risks; as well as weapons of mass destruction, livelihood crises, debt crises and IT infrastructure breakdown"<sup>1</sup>.

Business risks and dependency impacts from Climate Change are well understood by IEMA and our professional members. Recognising both the urgency and the business relevance of climate change, in 2019 the IEMA Board declared a Climate and Environmental Emergency<sup>2</sup> and reaffirmed a need for strategic commitment including;

- I. Climate Leadership across society from individuals, businesses, organisations and governments
- II. Policy frameworks and strategic developments that support certainty and confidence
- III. Recognition, integration and embedding Climate Change and Energy as central and mainstream business issues
- IV. Reporting, disclosure and increasing transparency on climate change and energy performance.

With reference to these strategic policy calls by IEMA, the Government's intention for mandatory climate related financial disclosures is an opportunity for progress on all four fronts. Although mandatory obligations may not be welcome by businesses, especially during difficult economic times, these proposals can support businesses in better understanding and managing their real exposures and their medium-term risks.

Since 2010, IEMA has worked with professionals to build understanding and evidence on the value of mandatory and transparent disclosure within mainstream annual reports. Through this work, we recognise that mandatory annual reporting can be a supportive policy driver that places an obligation on organisations to understand (and in turn manage) their energy consumption and carbon (GHG) emissions as well as opportunities for adaptation and resilience to climate risks. IEMA has described and evidenced this 'disclosure contribution potential' in earlier consultation responses to Defra, DECC and to HMT<sup>3</sup>.

<sup>&</sup>lt;sup>1</sup> Extract from World Economic Forum <u>Global Risks Report 2021</u>

<sup>&</sup>lt;sup>2</sup>2019 IEMA declaration of a Climate and Environmental Emergency - <u>https://www.iema.net/climate-emergency</u> <sup>3</sup> IEMA consultation responses and contributions to UK Government on disclosure and reporting,

<sup>•</sup> IEMA response to Streamlined Energy and Carbon Reporting (2018) – <u>SECR response formIEMA3.pdf</u>

IEMA has been active in addressing the developing climate financial risk agenda. In 2019, IEMA collaborated with the Institute and Faculty of Actuaries to develop user guidance specifically on Climate related financial disclosure<sup>4</sup> (also made available on CDP's TCFD hub). IEMA also has an engaged topic network on climate change with over 800 members.

IEMA's response to specific consultation questions are outlined below. The responses draw on existing IEMA positions and work on disclosure, combined with additional recent input from IEMA members. This included outcomes from a roundtable attended by members from the IEMA Climate Change and Energy Network and the IEMA Fellows Sustainable Finance working group.

#### QUESTION 1: Do you agree with our proposed scope for companies and LLPs?

Yes, IEMA agrees with the proposed scope and we recognise that this offers a pragmatic approach to mainstreaming TCFD reporting requirements into the company reporting landscape. However, there is room to alter this in order to enhance the impact of the policy.

Recognising the increasing business relevance of Climate Risk we suggest that the 500-employee threshold is reviewed and reduced to 250 in the future, potentially within the next three years, to capture mid-sized companies with large turnovers that could be impacted by climate change or impact climate change. We also recommend that £500m threshold is reviewed in future and reduced over time for similar reasons. Such a phased in extension approach that is well signalled will be less burdensome on businesses. Reduction on the thresholds will also be supportive in helping larger companies to engage with their supply chains in transitioning to net zero and in addressing physical risk and climate change adaptation.

We propose that further consideration should be given to the public sector. We accept that there should be an exemption for the majority of charities. Guidance could be usefully developed (updated) to engage charities and all sectors in addressing climate related risks.

## QUESTION 2: Our proposed scope includes UK registered companies with securities admitted to AIM with more than 500 employees. Do you have any views on expanding this to include other unregulated markets and Multilateral Trading Facilities (MTFs)?

As above, IEMA supports the principle of expanding and including other markets and MTFs. We believe the business benefits of disclosure will hold true and transfer, especially in better understanding and addressing the medium term and longer-term risks. Some IEMA members have noted a recent increase in Banks starting to include climate related financial risks into their questionnaires.

IEMA response to HMT DECC consultation (2015)https://www.iema.net/assets/templates/documents/iema consultation response reforming the energy tax landscape1 vs 2.pdf

<sup>&</sup>lt;sup>4</sup> A User Guide to Climate Related Financial Disclosure (2019) - <u>https://www.iema.net/knowledge/policy-</u> horizon/corporate-sustainability/climate-related-financial-disclosures

We consider that there is merit in expanding and in supporting this growing disclosure 'momentum'. We note the consultation refers to a comply or explain approach and believe this supports proportionality in response.

# QUESTION 3: Do you agree with the proposal to require climate related financial disclosures for companies and LLPs at the group level?

Yes, the principle of disclosure at the Group level is supported. This can allow companies to spend more time on the quality of their group level reports rather than trying to produce separate reports for different entities. This may also be positive for aligning and centralising reporting capability.

It is noted that some companies will for legitimate reasons not be historically reporting at the group level. It is suggested that the Government should give guidance for such situations and clarify how a comply or explain approach may apply.

#### QUESTION 4: Do you agree that the Strategic Report is the best place for the disclosure of climaterelated financial information by companies?

Yes, IEMA agrees that the Strategic Report is the best place for disclosure of climate-related financial information and we believe this should generate a greater focus on addressing risks. This also aligns with a position IEMA identified, within its response to the BEIS SECR consultation in 2018 as below;

"To increase corporate transparency and better allocation of capital, GHG data should increasingly be complemented by forward-looking information in strategic reports, explaining how a business will effectively adapt its strategy and business model to be part of the transition to a low-carbon and resilient economy".

"Business will benefit from simplification and clarification in this area, ensuring information disclosed in mainstream reports includes forward-looking disclosures (e.g. about risks, dependencies and corporate targets) as well as important performance data on energy and GHG emissions"

Rules through the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013, required companies to disclose information about appropriate environmental matters within the Strategic Report. The purpose was to inform members of the company and help them assess how the directors have performed their duty under section 172, to promote the success of the company. According to the Act, an applicable company's Strategic Report must already include a non-financial information statement containing information, to the extent necessary for an understanding of the company's development, performance and position and the impact of its activity.

In this regard, IEMA sees the proposal as a welcome clarification (strengthening) of this earlier section 172 requirement, rather than being seen as a completely new mandatory requirement.

Few companies have featured the financial impact of climate related risks and opportunities in the backend of the Strategic Report, but IEMA supports a requirement to do so in the future. It is also noted that there can be a lack of detail or supporting references. It is suggested that guidance can help this situation. Whilst certain detail may not be published within the Strategic Report, there is a need for suitable wider supportive disclosure, for example within supporting web pages or in supporting reports

(e.g. Corporate Sustainability, Corporate Responsibility, or annual Environmental reports as appropriate).

### QUESTION 5: Do you have views on whether LLPs should be required to disclose climate-related financial information in the Strategic Report (where applicable), or the Energy and Carbon Report?

We support the principle of disclosure within the Strategic Report and note this is consistent with the requirements of TCFD. This disclosure should be supported by details and information as appropriate (for example within annual energy and carbon reports).

Strategic reports are generally subject to more rigour and external scrutiny and therefore presenting this information in the Strategic Report feels appropriate.

### QUESTION 6: Do you agree that requiring disclosure in line with the four pillars of the TCFD recommendations, rather than at the 11-recommendation level is suitable?

We believe that reporting to the 4 pillars should initially be regarded as the minimum compliance. We suggest that after three years (from start of mandatory reporting for the entity) that disclosures should be made in line with the 11 TCFD recommendations. This will give companies time to refine their disclosures and prepare their systems accordingly. We suggest that the three-year period applies to entities from the date when they fall into the requirement.

We believe it is important to move to reporting that is in line with the 11 TCFD recommendations. Reporting against the four pillars will provide organisations with greater flexibility, but it may make it harder for external parties to find the information they are interested in. Also important is the need to seek a 'high level' of disclosure – against issues that are material to the business. We comment that disclosures should also be honest, including where there are gaps within understanding (and how they are being addressed). The imperative is for disclosure to be meaningful and high quality (rather than extensively detailed and hard to understand) Good quality disclosures are likely to draw on multidisciplinary teams of professionals and be 'owned' a Board level representative with direct responsibility for the businesses climate risk exposure.

An area warranting further support for businesses is the understanding of physical risk and the agenda of adaptation and resilience. The climate mitigation agenda (understandably) has dominated discourse around climate related financial risks. However elsewhere, extensive work has been completed on the adaptation agenda (physical risk) and this could be utilised, translated, and communicated for businesses looking to understand these risks.

For example, UK Government is required, under the 2008 Climate Change Act, to publish a climate change risk assessment (CCRA) every five years, setting out the (adaptation) risks and opportunities facing the UK from climate change. The Adaptation Committee of the Climate Change Committee published the second Climate Change Risk Assessment evidence report in 2016<sup>5</sup>, and is now working on an updated evidence report, due to be published in summer 2021. A new UK Climate Risk website has

<sup>&</sup>lt;sup>5</sup> Second UK Climate Change <u>Risk Assessment</u> (CCRA2 2017). The UK CCRA3, is due to be laid before Parliament by January 2022. (https://www.exeter.ac.uk/gsi/ccra3/)

also been developed<sup>6</sup>. It is proposed that guidance should be provided to support businesses in understanding climate change adaptation and physical risks. Potentially this could be combined alongside mitigation (see below).

Guidance also will need attention in relation to climate change mitigation and transition risk. Large sections of the UK Government's Environmental Reporting guidance<sup>7</sup> is out of date and some inconsistencies exist. Although there has been a helpfully updated section in 2019 on Streamlined Energy and Carbon Reporting, wider chapters are dated (from 2013) and this has caused some problems for users. Lifting out the Climate Change chapter and fully updating this to address inconsistencies (potentially in scope 2 accounting and offsetting for example) and to include climate change transition risk and climate change physical risk could be particularly helpful to businesses preparing for this new requirement. A road-map for the requirements would also be helpful to businesses (see response at Q 17).

QUESTION 7: Do you agree that information provided in line with the obligations set out above would provide investors, regulators and other stakeholders with sufficient information to assess the climaterelated risks and opportunities facing a company or financial institution?

Yes, as long as the information is objectively and professionally developed, presented in a consistent and transparent manner and is both meaningful, focused and of a high quality (see also reply to question 6 above)

# QUESTION 8: Do you agree with our proposal that scenario analysis will not be required within a company or LLP's annual report and accounts?

No, we disagree with this proposal. The TCFD recommends that scenario analysis is used to help assess the potential implications of climate-related risks and opportunities for the organisation and to help inform stakeholders about how resilient the organisation is in the light of these risks and opportunities. Although scenario analysis can be complex, it is fundamental to transparent risk disclosure.

In practice, at least two scenarios will be needed: one should be broadly 'Paris-aligned' and the other should encompass more limited climate action (ie higher temperature). Scenario analysis can be either qualitative or quantitative, and the sophistication of an organisation's approach is likely to increase over time. In a sophisticated quantitative approach, each scenario will be a highly complex structure including detailed mitigation assumptions, effects on relevant industries and developing assumptions about climate.

The scenarios that organisations choose to use in their disclosures will provide information on the extent to which they have a broad understanding of the risks that climate change presents to them and the robustness of the actions they are taking to address those risks. A scenario is not necessarily a prediction or a forecast: it is simply a plausible path of development leading to a particular outcome.

<sup>&</sup>lt;sup>6</sup> A new UK Climate Risk website will host all of the outputs for the CCRA3 Evidence Report, from technical chapters through to the research projects through to summaries of the advice. <u>https://www.ukclimaterisk.org/</u>
<sup>7</sup>UK Government Environmental Reporting Guidance

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/850130/Envreporting-guidance\_inc\_SECR\_31March.pdf

Scenarios can enhance critical strategic thinking by exploring alternative outcomes that challenge conventional wisdom about the future.

We suggest that suitable reference scenarios could be developed and shared to support this requirement (with key stakeholders engaged so these can be tailored by industry or sector). LLPs can be impacted by physical risks just the same way as listed companies and have a key role in transitioning to a low carbon and resilient economy. It is therefore appropriate that they also comply with these IEMA believes that scenario analysis is a key component of TCFD reporting and should be required.

Without scenario analysis, we believe the value of this mandatory requirement is questionable. We recommend that the requirements should include as a minimum disclosure of scenario analysis outcomes and that supporting detail and information should be publicly available. Qualitative scenario analysis can be instructive and could be an option for compliance.

QUESTION 9: Would alignment of the scope for climate-related financial disclosures and SECR requirements, such that large unquoted companies and LLPs would be subject to the same reporting requirements under SECR as quoted companies, aid reporting of climate related financial disclosures and simplify reporting procedures? Do you have any views on the continuation of voluntary Scope 3 emissions reporting under SECR requirements?

We agree with the general direction of these policy proposals but make the following observations;

- I. IEMA supports the general principle of unquoted companies and LLPs being subject to the same reporting requirements as quoted companies.
- II. Some transparency concerns have been raised, relating to consulting on changes to SECR within a consultation concerning Financial Disclosures.
- III. As a minimum we believe that the government should set a deadline for all companies that fall within the SECR threshold to report on significant Scope 3 carbon emissions (for some this may be limited to certain upstream emissions).
- IV. We believe a separate consultation on Scope 3 reporting is justified and will be required to better address and determine this SECR extension.

Scope 3 disclosure is important in making progress on net-zero, in understanding material emissions and in addressing transition risk within climate related financial disclosure. These developments could help to level (up) the reporting 'playing field' and also could help quoted companies to better engage with their supply chain on climate risk and net-zero (and potentially could aid reporting as stated in the consultation). There are however many complexities that will require attention such as the 'ownership' dynamic, materiality and double counting. The direction is supported, but a further scope 3 consultation is proposed.

# QUESTION 10: Do you have comments on the proposal to permit non-disclosure if the information is not material and the reasons why climate change is not material are properly explained?

We suggest that this issue and question is best addressed by ensuring the requirements align with EFRAG<sup>8</sup> and comment that this would assist with consistency in approach.

<sup>&</sup>lt;sup>8</sup> https://www.efrag.org/Activities/2010051119418610/Climate-related-reporting

#### **QUESTION 11:** Do you have comments on the proposed timing for these regulations coming in to force

IEMA considers that the regulations require clear visibility in their phasing (for future up-lift) and in implementation. See comments in Q6 and Q17 responses.

# QUESTION 12: Do you have any comments regarding the existing enforcement provisions for companies and the BEIS proposal not to impose further provisions?

We disagree with the BEIS proposal to not look at further enforcement provisions.

In IEMA's response to the BEIS SECR consultation (2017-18) we stated the following. Notably, the IEMA position at that time, recognised a need for more effective and robust enforcement in future. There was agreement that this will be important in support of the proposed mandatory requirement on climate related financial disclosure (as now being considered);

"it is stated within the consultation paper paragraph 3.12. that enforcement of SECR in relation to compliance with statutory reporting requirements would sit within the wider remit of the Financial Reporting Council. However, the Impact Assessment appears to counter this, stating in paragraph 97: "Monitoring of non-financial reporting is undertaken by the Financial Reporting Council, and looks for false/reckless disclosures but does not check non-financial content. It is not proposed that additional monitoring or enforcement activities are added to this regime".

Following the recommendations of the Financial Stability Board's industry-led Taskforce on Climate-related Financial Disclosure (TCFD), climate related financial disclosures should in future increasingly fall under the remit of the Financial Reporting Council (FRC) and crucially, this should be underpinned with more effective and robust enforcement".

The enforcement provisions in the current consultation are not believed to be onerous, but (importantly) may not be suitable to specific nature of this risk disclosure (i.e. there are complexities in applying enforcement within a context that is forward looking). Unaltered, they are considered unlikely to lead to directors taking a keen interest in the disclosures.

Feedback from engaged professionals is that without stronger enforcement, the consultation proposals will not achieve their policy objective and we therefore believe this issue should be further considered. Professionals have drawn parallel examples to other schemes and policies where fines and enforcement have been influential. In addition, we propose that mandating an allocated Board level responsibility would help the disclosure requirement and would better embed Climate Risk within decision-making.

#### **QUESTION 13:** Do you have any comments regarding duties and enforcement provisions for LLPs?

As above, we would recommend developing / introducing financial penalties and that this be investigated further (and consistently.

### QUESTION 14: Do you have any comments on the responsibilities of auditors in relation to climaterelated financial disclosures?

There is an (understandable) broad skills, knowledge and competency gap concerning climate related financial disclosures. We would recommend that minimum competency requirements are introduced. IEMA could support auditors and others with the relevant training and CPD requirements.

QUESTION 15: Do you have any comments regarding the proposed enforcement of our disclosure requirements? -

Please see answer at Q12 where we discuss this. By their nature (i.e. because this relates to future risk) we believe these new mandatory requirements can not be addressed by existing enforcement provisions. In our view, this is a key difference in approach and warrants further consideration on how enforcement can reasonably and effectively support the policy.

## QUESTION 16: Do you have any comments regarding the impact of our proposals on protected groups and/or how any negative effects may be mitigated?

It is observed that as a principle, disclosure of climate related financial risk, could be positive in supporting protected groups now and in the future, if requirements are strongly pursued and enacted.

IEMA is actively engaged in addressing diversity issues within the profession<sup>9</sup> and would be very willing to engage with BEIS on diversity and on protected groups.

#### QUESTION 17: Do you have any further comments about our proposals?

Opportunities exist in skills, training and in guidance to support businesses with the smooth and effective implementation of these requirements (and addressing transition and physical risk). Climate related financial disclosure should also be developed to ensure that negative trade-offs are minimised and broader sustainability embedded. Systems thinking and lifecycle approaches are key principles. This can be addressed within guidance and within training and skills developments.

#### Guidance

New (updated) guidance would be valuable. IEMA has recently updated it's own guidance on net-zero transitions, advocating the use of an updated GHG Management Hierarchy approach and net-zero principles<sup>10</sup>. In our response to question 6 we outlined how guidance developments could support better policy outcomes in this field. Additional specific examples for further guidance and tools could include;

<sup>9</sup> https://transform.iema.net/article/iema-launches-diverse-sustainabilityinitiative#:~:text=IEMA%20launches%20Diverse%20Sustainability%20Initiative%2018%20March%202021,backgrou nds%20working%20in%20the%20environmental%20and%20sustainability%20profession.

<sup>&</sup>lt;sup>10</sup> Pathways to net-zero IEMA, 2020 - <u>https://www.iema.net/resources/reading-room/2020/11/26/pathways-to-</u> net-zero-using-the-iema-ghg-management-hierarchy-november-2020

- A template for identifying transition and physical risks against different climate scenarios to help practitioners evaluate the financial impacts of these and provide the relevant evidence against different timelines
- Access to an environmentally extended input output (EEIO) model for Scope 3 benchmarking to allow organisations to estimate their Scope 3 emissions and start measuring progress (a requirement for TCFD).

As indicated in our question 6 response, in relation to physical risk there is a body of climate change adaptation work that could be drawn on. Concepts such as adaptive capacity and systems thinking are important to consider and new ISO standards can contribute<sup>11</sup>. We believe that the CCRA3 work and the new UK Climate Risk website will offer valuable resources that could be translated and packaged to help businesses in addressing physical risk.

#### Skills and Training

An underlying presumption in the narrative on "Green Jobs", including in the Government's Green Jobs Taskforce, has focused on dealing with the skills/roles needed to deploy new low carbon infrastructure and technology (e.g. offshore wind, electric vehicles, heat pumps) and ensue a "just transition" in sectors/communities which will be most affected (e.g. oil and gas, steel). These are clearly very important, but the reality is more complex as many "Green Jobs" are (and will be) in existing businesses which are not in the new low carbon sectors, nor in those with the most significant transition challenges; the "Green Jobs" in the mainstream economy are key in driving energy/resource efficiency, sustainable procurement, eco-design, pollution control and corporate net zero transitions.

IEMA has highlighted this (embedded) green jobs skills challenge within our recent response to the Environmental Audit Committee's Inquiry into Green Jobs<sup>12</sup>

Mainstreaming and integration is critical, for example: we need all engineering and product designers to integrate climate and environmental considerations into all their work, not just designs specifically relating to low carbon technologies; all procurement activity should apply sustainability principles, not just the procurement of green technologies. We also see effective engagement through "Green Champion" networks in a growing number of IEMA corporate partners, where hundreds of employees are engaged in supporting the overall delivery of organisational environment and climate targets.

#### Public sector

In our response to question 1, we proposed that positive consideration be given to the public sector. We note that examples are emerging of cities and regional authorities that are addressing climate related financial risks. An interesting example is the approach taken in California<sup>13</sup>

"The Advisory Group, as part of California's cross-government framework for urgently addressing and mitigating the impacts of climate change, will focus not only on identifying best practices across national and international climate risk disclosure, but also on the unique challenges and opportunities that might arise when applying climate risk disclosure to a public sector decisionmaking context."

<sup>&</sup>lt;sup>11</sup> New ISO Standards include - ISO 14090 (2019) and ISO 14091 (2021) – Also ISO guide 84 (2020)

 <sup>&</sup>lt;sup>12</sup> IEMA response to EAC Green Jobs Inquiry 2021 - <u>https://committees.parliament.uk/oralevidence/1664/pdf/</u>
 <sup>13</sup> California Climate Risk - <u>http://opr.ca.gov/news/2021/04-05.html</u>

#### Road-map

Professionals have requested that the existing TCFD road-map<sup>14</sup> be further updated and developed to help businesses plan for and address these specific new mandatory requirements (alongside other related requirements). Within this, it is commented that minimum compliance requirements should be clearly stated, along with a timeline for future uplifts in requirements and for further consultations (where these are known / expected)

In addition, there is recognition that further environmental risk disclosure approaches are developing such as TFND<sup>15</sup>. It is requested that these be considered by the Government and that the policy proposals within this consultation factor in and allow for future alignment (as far as this is possible).

Nick Blyth - n.blyth@iema.net

Policy & Engagement Lead

IEMA – Institute of Environmental Management and Assessment www.iema.net May 2021

<sup>14</sup> <u>https://www.gov.uk/government/publications/uk-joint-regulator-and-government-tcfd-taskforce-interim-</u> report-and-roadmap <sup>15</sup> https://tnfd.info/