

Sustainable Product & Business Strategy Guidelines

Authors: Sustainable Web Design Community Group

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Contact: <https://www.w3.org/community/sustyweb/wiki/> (**Slack:** DM / Product-Biz-Strategy Group)

- **Committee Chair:** Tim Frick
- **CG Chairs:** Tim Frick & Alexander Dawson

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Overview

Organizations need to put more responsible business practices in place in order to fully support sustainable digital transformation. This is especially critical to the successful creation and ongoing management of digital products and services. Without strong ethical foundations at the organizational level, unintended social, environmental, and economic consequences can occur.

The guidelines below offer strategies and tactics to help organizations of any size and in any industry create, manage, and maintain more impactful digital products, services, policies, and programs. These guidelines are primarily concerned with organizational policies and digital product/service governance.

Business Strategy:

Objective: Provide evidence-based digital oversight guidance on how business leaders can apply operational ESG principles to digital products, services, policies, and programs within their organizations.

Guideline 1.1 : Create a Code of Ethics or Sustainability Statement of Intent

Description

Create a publicly available statement in an easy to find location on your website that outlines clear ESG standards that align with the organization's mission, vision, and values and includes statements specific to digital products, services, policies, and programs.

Success criterion 1.1.1

The organization has published a publicly available Code of Ethics, Sustainability, or ESG Statement that includes language specific to digital products, services, policies, and programs.

Impact & Effort

Impact : High

Effort : Low

Success criterion 1.1.2

The organization can show how it powers digital products and services with renewable energy.

Impact & Effort

Impact : High

Effort : High

Success criterion 1.1.3

The organization can show how it effectively governs digital sustainability, climate policies, and related ESG practices over time.

Impact & Effort

Impact : High

Effort : High

Benefits

Ethical: A Code of Ethics or statement of intent aligns the organization's product/service offerings and business practices with a clear set of principles that stakeholders can understand and support.

Financial: A clear statement of intent will make it easier for the company to measure and report on its impact efforts.

Sustainability: A clear sustainability statement should make it easier to align organizational policies and practices with measurable metrics to support goals.

Example

- Mightybytes' [Code of Ethics](#)
- Wholegrain Digital's [Ethical Policy](#)
- [Otto Group Corporate Digital Responsibility](#)
- Piano D:
 - <https://www.piano-d.it/codice-di-condotta-aziendale.pdf>
 - <https://www.piano-d.it/codice-etico.pdf>
 - <https://www.piano-d.it/environmental-policy.pdf>
 - <https://www.piano-d.it/ethical-marketing-policy.pdf>

Guideline 1.2: Define Clear Organizational Sustainability Goals and Metrics

Description

Define sustainability goals for the organization to meet and incorporate into its business model. Pair each goal with at least one clear, achievable metric or KPI.

Success criterion 1.2.1

The organization has defined and published a clear set of sustainability goals. It publicly communicates how it will meet these goals, including which performance metrics are important to help the organization and its various stakeholders thrive.

Impact & Effort

Impact : High

Effort : Medium

Benefits

Sustainability: Setting, measuring, and communicating clear sustainability goals aligns an organization's impact aspirations with ongoing efforts to meet these goals.

Engagement: Helps stakeholders such as employees, clients, and partners better understand how the organization creates shared value in its various sustainability policies and programs.

Financial: Aligning with existing standards or frameworks makes it easier for organizations to include digital in its overall sustainability reporting.

Example

- [Science-based Targets](#)
- [U.N. SDGs](#) and [U.N. Global Compact](#)
- [B Corp Standards](#)

- [Corporate Digital Responsibility](#) manifesto
- [Web Quality Assurance](#) checklist from Opquast

Guideline 1.3: Consider Third-Party Business Certifications

Description

Business certifications fill the gaps left by incomplete sustainability legislation. Third-party certifications verify and apply an objective level of rigor to an organization's sustainability efforts.

Success criterion 1.3.1

The organization has achieved one or more business sustainability certifications and incorporated operational policies and practices to support them.

Impact & Effort

Impact : High

Effort : High

Success criterion 1.3.2

The organization maintains its certification through evolving policies and practices over time.

Impact & Effort

Impact : High

Effort : Medium

Benefits

Financial: Business certifications, which are overseen by impartial governing bodies help organizations operationalize sustainability principles and achieve higher verified levels of social and environmental performance, accountability, and transparency.

Financial: These certifications can also help an organization differentiate itself from others in its industry. However, organizations should be sure to vet the certifying entity so no conflicts-of-interest exist.

Operations & Culture: These types of certifications can make it easier for organizations to align operational practices with their mission, vision, and values and communicate these decisions to organizational stakeholders.

Examples

- [B Corp certification](#)
- [ISO 14001](#), [50001](#)
- France : [Label numérique responsable](#) (INR & Agence Lucie)
- Germany: [Blue Angel](#)

Guideline 1.4: Sustainability Onboarding Guidelines

Description

The organization has clear onboarding and training processes that include ESG policies and practices with explicit references to digital sustainability and responsibility. Ensure that onboarding utilizes a “green by default” process and avoids being an opt-in procedure.

Success criterion 1.4.1

The organization has dedicated training manuals, workshops, and materials that outline the ESG policies and practices it follows and how to implement them.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 1.4.2

The organization manages and maintains these materials over time, adapting them as new policies and practices arise.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 1.4.3

The organization incentivizes leadership, teams, and stakeholders to make progress toward the goals outlined in their training including time for sustainability activities, recognition for completion, as so on.

Impact & Effort

Impact : High

Effort : High

Benefits

Financial: Organizations with sustainability training and onboarding practices in place benefit from higher retention rates, improved performance, and more resilient standards of practice for maintaining business continuity.

Success criterion 1.4.3

Anticipate and map potential negative external forces on the service, and take action to minimize them.

Impact & Effort

Impact : High

Effort : Medium

Example

- [Tarot Cards of Tech](#), *Artefact Group*
- [Systemic Design Toolkit](#), *Systemic Design Toolkit*

Guideline 1.5: Support Mandatory Disclosures and Reporting

Description

The organization discloses and reports its ESG impact on at least an annual basis.

Success criterion 1.5.1

The organization has created and published policies and practices for disclosing the social and environmental impacts of its products, services, policies, and programs in line with existing reporting standards such as [GRI](#), [SASB](#), etc.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 1.5.2

The organization produces a publicly available impact report outlining its progress against previous reports on social and environmental goals at least once per year.

Impact & Effort

Impact : Medium

Effort : Medium

Success criterion 1.5.3

The organization follows existing or emerging environmental standards in its impact reporting and maintains these practices over time for future reports.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 1.5.4

The organization publicly and transparently supports legislative policy that promotes mandatory disclosures and reporting for emissions and other social and environmental criteria.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 1.5.5

The organization clearly identifies how it reduces its environmental impact avoiding double accounting, greenwashing, excluded data, or other manipulative techniques.

Impact & Effort

Impact : Medium

Effort : Medium

Benefits

Financial: Organizations that regularly report on their impact, and show measurable improvement over time, are increasingly likely to attract employees, partners, potential customers, investors, and suppliers based on shared values and an aligned mission.

Financial: Customers are [more likely to purchase](#) products from ethical companies with a proven environmental record.

Operational: As reporting standards become more rigorous and commonplace, early adopters find the transition less disruptive due to more resilient business operations. Organizations that commit to these practices long-term will also be ahead of the curve as legislation catches up.

Example

- [Impact Report Rationale And Examples](#), Sopact
- [Impact Reports That Impacted Us](#), Unit of Impact
- [Global Impact Report](#), Kinaxis
- [Pinterest ESG Report](#)
- [GRI](#), [SASB](#), [GHG Protocol](#), [Carbon Disclosure Project](#) etc.
- [Task Force on Climate-related Financial Disclosures](#)

Guideline 1.6: Consider Creating One or More Impact Business Models

Description

An Impact Business Model enables an organization to incorporate specific impact initiatives into one or more business models for generating revenue, often making them 'green by default' and folding impact initiatives into the organization's operating system.

Success criterion 1.6.1

The organization has completed a Theory of Change process with requisite documentation to identify the impact it hopes to create, how it will generate revenue from these activities, and how it will measure results based on desired outcomes.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 1.6.2

The organization has operationalized their Theory of Change, is generating revenue, and actively tracks and measures progress against desired outcomes.

Impact & Effort

Impact: High

Effort: High

Benefits

Financial: Organizations that implement these practices create positive social and environmental impact with every sale of a product or service.

Financial: These practices also make it easier for the organization to track and measure progress over time.

Example

- [How to Design an Impact Business Model](#), Mightybytes
- [Impact Business Model Canvas](#)
- [Models of Impact](#) game
- [Theory of Change Development Guidance](#), UNDC
- [Theory of Change Template](#), Mightybytes

Guideline 1.7: Focus on Continuous Improvement

Description

The organization has policies and practices in place to embrace experimentation, foster a growth mindset, support organizational agility, and focus on continuous improvement.

Success criterion 1.7.1

The organization has created policies and practices to enable continuous improvement and has resourced the organization appropriately to support these efforts over time.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 1.7.2

The organization can show a track record of continuous improvement while also addressing the by-products and potential consequences of ongoing experimentation, such as technical debt, product performance, emissions, and related issues.

Impact & Effort

Impact : High

Effort : High

Benefits

Financial: Agility and continuous improvement help an organization be more resilient in the face of disruption and a changing climate.

Financial: Long-term, these practices save the organization time, money, and resources. They also provide security benefits that decrease risk and can potentially reduce emissions.

Operations & Culture: A culture of experimentation fosters more innovation. This supports team-building and improves overall organizational resilience and efficiency.

Example

- [Technical Debt, Agile, and Sustainability](#), Mightybytes
- [How B Corp Certification Guides Rituals on a Journey of Continuous Improvement](#), B the Change

Guideline 1.8: Create Supplier Standards of Practice

Description

The organization collaborates with suppliers, vendors, clients, and other partners on initiatives that are both mutually beneficial and create positive social and environmental outcomes.

Success criterion 1.8.1

The organization has created specific policies to vet potential partners in its supply chain based on ESG principles.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 1.8.2

The organization has partnered with suppliers to create, track, and measure collective impact on issues that impact their stakeholders.

Impact & Effort

Impact : High

Effort : High

Success criterion 1.8.3

The organization promotes its partnerships in a publicly available place along with information on how the partnership creates collective impact.

Impact & Effort

Impact : High

Effort : High

Benefits

Sustainability: Vetting suppliers and partners can help an organization define, track, and reduce its Scope 3 emissions.

Financial: This will also help an organization better align its business ecosystem with its mission, vision, and values.

Financial: Stakeholder relationships are improved.

Operations & Culture: This can increase diversity in the tech sector.

Example

- [*Client, Partner, and Supplier Screening Tools for Positive Impact Supply Chains*](#), B the Change
- [*Stakeholder Mapping for Purpose-Driven Organizations*](#), Mightybytes
- [*How Azavea Selects Projects*](#), Azavea

Guideline 1.9: Sharing Economic Benefits

Description

The organization shares the economic benefits of its digital products, services, policies, and programs.

Success criterion 1.9.1

The organization publicly commits to paying employees, contractors, and other stakeholders a living wage.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 1.9.2

The organization has policies and practices in place to incentivize stakeholders, such as workers and contractors, to meet its impact goals.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 1.9.3

The organization provides benefits to employees in accordance with its resources, including, where relevant, healthcare, retirement planning, flex time, profit sharing, and so on.

Impact & Effort

Impact : High

Effort : High

Success criterion 1.9.4

The organization advocates for responsible legislation that supports employment rights, transparency, and accountability related to sharing economic benefits.

Impact & Effort

Impact : High

Effort : Low

Benefits

Ethical: Organizations that pay a living wage and offer good benefits often have higher employee retention rates.

Financial: Organizations that collaborate with stakeholders to coordinate mutually beneficial economic incentives benefit from stronger relationships.

Example

- [Five Business Management Strategies We Learned as a B Corp](#), B the Change
- [Living Wage Network](#) certification

Guideline 1.10: Justice, Equity, Diversity, Inclusion (JEDI)

Description

The organization has public policies and practices supporting racial justice, inclusion, equity and diversity in hiring and operations.

Success criterion 1.10.1

The organization has documented its commitment to JEDI practices with clear policies on how it prioritizes marginalized or otherwise underserved communities, including Black, Indigenous, People of Color, LGBTQIA+, Women, Disabled, Veterans, Seniors, and so on.

Impact & Effort

Impact : High

Effort : Low

Success criterion 1.10.2

The organization has an accessibility policy for digital products and services and can show this via a verified accessible website, app, etc.

Impact & Effort

Impact : High

Effort : High

Success criterion 1.10.3

The organization has JEDI-related training materials and schedules ongoing workshops related to how this topic manifests itself in digital products and services (algorithmic bias, digital divide, gig economy work, mis/disinformation, etc.).

Impact & Effort

Impact : High

Effort : High

Success criterion 1.10.4

The organization can show measurable JEDI improvement over time in its hiring, leadership, and operations.

Impact & Effort

Impact : High

Effort : High

Success criterion 1.10.5

The organization advocates for responsible legislation relating to JEDI practices, especially as related to digital products and services.

Impact & Effort

Impact : High

Effort : Medium

Benefits

Accessibility & Inclusion: Organizations that incorporate more diverse stakeholder perspectives enact more inclusive policies and often create better products, services, and programs.

Accessibility & Inclusion: JEDI practices strengthen an organization's resilience and ability to collaborate.

Financial: Organizations with clear JEDI policies and practices have reduced risks of potential legal issues, lawsuits, etc.

Accessibility & Inclusion: This improves diversity in the tech sector and the overall accessibility of the internet.

Example

- Mangrove Web Development's [Accessibility](#) and [Diversity, Equity, and Inclusion](#) statements
- Nava's, [DEI Statement](#)
- CivicActions' [Accessibility Statement](#)

Guideline 1.11: Responsible Data Practices

Description

The organization has devised and implemented a responsible data strategy that prioritizes data privacy and promotes more ethical uses of data, including disposal and data sustainability practices.

Success criterion 1.11.1

The organization has a public-facing privacy policy in place and supports existing privacy laws such as GDPR, CCPA, and so on. This policy must be both accessible for all users, including those with accessibility and reading comprehension needs, and abide by plain English best practices to avoid jargon, technical language, and legalese.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 1.11.2

The organization can show measurable progress over time on how it respects data privacy and ownership including a user's 'right-to-be-forgotten' and provides the ability to export data.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 1.11.3

The organization supports new and emerging legislation related to data privacy, data sustainability, and responsible data practices.

Impact & Effort

Impact : High

Effort : Low

Success criterion 1.11.4

The organization can show how it measurably decreases data retention with clear data disposal strategies.

Impact & Effort

Impact : High

Effort : Medium

Benefits

Financial: Organizations that prioritize data privacy and other responsible data practices benefit from reduced risk and costs, increased resilience, and, often, better relationships with customers and other stakeholders.

Example

- The [Airbnb Privacy Policy](#) includes compliance to [local emerging legislation](#), [data ownership](#), and measurable progress through [previous versions](#).
- The [Telegram Privacy Policy](#) includes detailed data practices, reference to local legislation, shows change over time and is written in plain language.
- The [Slack Trust section](#) is inclusive of [Privacy](#), Security, Compliance, Ownership and more. The Slack Trust section also includes a description of [how data informs search, ML and AI](#).
- The CodePen [Terms of Service agreement](#) has a very well written policy using plain english which is very easy to understand.
- [General Data Protection Regulation \(GDPR\)](#) - Europe's data privacy and security law
- [California Consumer Privacy Act \(CCPA\)](#) - California's data privacy law

Guideline 1.12: Responsible Automation and Emerging Technology Practices

Description

The organization has devised and implemented responsible policies related to automation, Artificial Intelligence (AI), Internet of Things (IoT), blockchain, and related emerging technologies.

Success criterion 1.12.1

The organization has public-facing policies in place for automation and emerging technologies.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 1.12.2

The organization can show how it upskills workers as new technologies and practices potentially disrupt its business model.

Impact & Effort

Impact : High

Effort : High

Success criterion 1.12.3

The organization supports responsible legislation related to automation and emerging technologies.

Impact & Effort

Impact : High

Effort : Low

Benefits

Financial: Organizations with clear policies related to digital disruption are more resilient and can pivot more quickly than those without.

Operations & Culture: Organizations that prioritize ongoing learning and continuous improvement build stronger teams that can adapt more quickly.

Financial: Organizations with clear emerging technology policies are at less risk for any number of potential threats, including legal action.

Example

- [Azavea's 10% Time Program: How We Encourage Innovation Internally](#)

- [OttoGroup - Digital Education](#)

Guideline 1.13: Responsible Financial Policies

Description

The organization implements responsible finance strategies, including divesting from fossil fuels and appropriately resourcing digital products and services to account for long-term care and maintenance.

Success criterion 1.13.1

The organization has divested from fossil fuels and moved its banking to more responsible partners.

Impact & Effort

Impact : High

Effort : High

Success criterion 1.13.2

The organization engages in flexible financing and responsible budgeting for its digital products and services in order to accommodate long-term care and maintenance.

Impact & Effort

Impact : High

Effort : High

Benefits

Sustainability: Divesting from fossil fuels moves us more quickly to an economy that is powered by renewable energy, which can reduce the catastrophic impacts of climate change.

Financial: Responsibly financing digital products and services improves their resilience and saves the organization time, money, and resources in the long run.

Examples

- [How to Improve Your Digital Resilience](#), Mightybytes
- [The Case for Fossil Fuel Divestment](#), David Carlin, *Forbes*

Guideline 1.14: Organizational Philanthropy Policies

Description

For-profit organizations have clear philanthropy policies and practices in place to help nonprofit organizations build digital capacity and acumen while also engaging their own teams in meaningful work that promotes shared learning and stretch goals.

Success criterion 1.14.1

The organization has a clear corporate giving policy and/or creates philanthropic partnerships with strategically aligned organizations.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 1.14.2

The organization engages in pro bono or volunteer service projects that help its team learn new tools and tactics while also helping charities and nonprofit organizations build capacity.

Impact & Effort

Impact : High

Effort : High

Benefits

Operations & Culture: Organizations with clear philanthropy strategies that include volunteer or pro bono projects with team stretch goals can have higher employee engagement and retention.

Financial: Organizations with clear philanthropic strategies often have a system of checks and balances in place that support better overall financial practices.

Examples

- [1% for the Planet](#)
- [Our Corporate Philanthropy Practices](#), Mightybytes
- [What is Chicago Cause?](#), Orbit Media Studios

Guideline 1.15 : E-Waste, Right-to-Repair, and Recycling Policies

Description

The organization addresses e-waste, right-to-repair, recycling, and related practices in its operations.

Success criterion 1.15.1

The organization has specific policies in place to recycle e-waste and repair owned technology products whenever possible.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 1.15.2

The organization has formed relationships with local partners for e-waste recycling and repair.

Impact & Effort

Impact : High

Effort : Low

Success criterion 1.15.3

The organization buys refurbished equipment whenever possible.

Impact & Effort

Impact : Medium

Effort : Medium

Benefits

Sustainability: Organizations with clear e-waste and recycling policies reduce environmental impact and promote circularity while also extending the shelf life of technology hardware. When coupled with clear philanthropic policies, donated hardware can also support resource-constrained charities.

Financial: Extending the shelf life of hardware and clear e-waste/recycling policies reduces costs.

Examples

- [E-waste Policy Toolkit](#), International Telecommunication Union (ITU)
- [How Companies Are Addressing the E-Waste Problem](#), Serenity Gibbons, *Forbes*

Product Strategy:

Objective: Provide evidence-based guidance on how digital teams can apply sustainability principles to product and project management tasks when designing, creating, developing, and maintaining digital products and services.

Guideline 2.1: Ethical Product Strategy and Sustainability Statement

Description

The organization has committed to prioritize ethics and sustainability in the digital products and services it produces and uses.

Success criterion 2.1.1

The organization explicitly includes digital products and services in its Code of Ethics, product guidelines, and/or sustainability statement.

Impact & Effort

Impact : High

Effort : Low

Success criterion 2.1.2

The organization has implemented policies that incorporate sustainability principles into the guidelines with which it develops digital products and services.

Impact & Effort

Impact : High

Effort : High

Success criterion 2.1.3

The organization has training decks and workshops it uses to onboard new team members on how it implements more sustainable product strategies.

Impact & Effort

Impact : High

Effort : High

Benefits

Sustainability: Organizations with clear sustainability principles included early in digital product strategy benefit from improved efficiency and reduced environmental impact.

Financial: This approach often saves organizations time, money, and resources.

Operations & Culture: Product teams are more engaged in the work they're doing.

Examples

- [Code of Ethics](#), Mightybytes (repeat from Biz Strategy above)
- [Digital Sustainability and Enel's Code of Conduct](#), Enel

Guideline 2.2: Product Management and Maintenance Strategy

Description

The organization has clearly defined governance policies around how it manages and maintains digital products and services over time.

Success criterion 2.2.1

The organization has documented policies outlining how it approaches product management and maintenance.

Impact & Effort

Impact : High

Effort : Low

Success criterion 2.2.2

The organization has maintenance/security plans in place for all the digital products and services it manages.

Impact & Effort

Impact : High

Effort : High

Success criterion 2.2.3

The organization appropriately resources products over time via staffing and budgeting to support refactoring code, addressing tech debt, new product features, ongoing testing, and product/service maintenance plans to continue supporting its customers, users, and other stakeholders.

Impact & Effort

Impact : High

Effort : High

Success criterion 2.2.4

The organization incorporates carbon and resource measurement into maintenance programs and can show measurable improvement over time.

Impact & Effort

Impact : High

Effort : High

Benefits

Financial: Organizations with clear product maintenance and management practices tend to be more resilient in the face of digital disruption.

Performance: Products at these organizations also have better security, reduced technical debt, and improved data privacy, and customer retention.

Sustainability: This provides another opportunity to manage and reduce emissions over time.

Examples

- [*You've Built Your Digital Product. Now What?*](#), Tim Proctor, Scaffold Digital
- [*Digitalization for Sustainable Maintenance Services*](#), Bishal Raj Karki, Jari Porras, Elsevier

Guideline 2.3 : Define Performance and Carbon Budgets

Description

The product team has defined and baselined clear performance and carbon budgets that are approved by relevant product stakeholders.

Success criterion 2.3.1

The product team has documented performance/carbon budget criteria that covers page, user journey, and digital service levels.

Impact & Effort

Impact : High

Effort : High

Success criterion 2.3.2

The product team can measurably show how much the budgeting process improved performance and reduced emissions.

Impact & Effort

Impact : High

Effort : High

Success criterion 2.3.3

The product team invests in resources to build capacity and maintain performance/carbon budgets over time.

Impact & Effort

Impact : High

Effort : High

Benefits

Sustainability: A direct impact on emissions reduction

Conversion: Reduced churn and page abandonment

Performance: Improved product performance

Conversion: Potentially improve search engine performance

Guideline 2.4: Stakeholder-Focused Testing & Prototyping Policy

Description

The organization has policies and practices in place to incorporate stakeholder-focused testing and prototyping into its product development cycles.

Success criterion 2.4.1

The organization has outlined processes it uses to prototype and test new features, product ideas, and UI components when applicable with real users who represent various stakeholder perspectives including people with slow connection, with disabilities, with difficulties using digital services and so on.

Impact & Effort

Impact : High

Effort : High

Success criterion 2.4.2

The organization has appropriately resourced these processes to support long-term product viability.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 2.4.3

The organization has training materials to onboard new product team members to these practices.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 2.4.4

The organization regularly conducts A/B, multivariate, user interviews, and related tests to validate whether released features are meeting both business goals and user needs.

Impact & Effort

Impact : High

Effort : High

Benefits

Financial: Organizational policies that prioritize user research help to reduce and mitigate risks associated with building the wrong thing and incurring technical debt, which can increase costs.

Financial: Iterative testing and prototyping reduces the resources needed to build new features.

Conversion: Reduced user frustration, less churn.

Sustainability: Potentially less energy use and reduced emissions as users complete tasks more quickly.

Examples

- [Product Management and the Build Trap](#), Mightybytes
- [Prototyping User Experiences: Reducing the Risks of Product Innovation](#), UX Matters
- [5 Common Low-Fidelity Prototypes and Their Best Practices](#), Interaction Design Association

Guideline 2.5: Open Source Tools

Description

The organization has clear policies about using open source tools, including how it gives back to the community and responsibly manages code repositories to reduce waste.

Success criterion 2.5.1

The organization has a clear open source policy in place that outlines how it uses open source tools and the practices it supports surrounding open source development.

Impact & Effort

Impact : High

Effort : Medium

Success criterion 2.5.2

The organization has a track record of collaboration and community-building around open source principles.

Impact & Effort

Impact : High

Effort : High

Success criterion 2.5.3

The organization regularly contributes to open source community-based projects.

Impact & Effort

Impact : High

Effort : High

Benefits

Financial: If managed properly, open source tools can significantly reduce development time.

Operations & Culture: Collaboration and community-building around open source practices engenders trust and helps to reduce inequalities.

Example

- [The Open Source Way](#)
- [Gitlab Open Source policy](#) as part of its [Open Sourced Employee Handbook](#)
- The [TODO Group](#) has many resources needed to set up Open Source practice

Notes & Previous Suggestions

By way of prompt, here are 4 suggested areas to address in the [Business](#) and [Product](#) sections below.

Do comment (Insert -> Comment) on any point or directly edit any part of the document. If you change something already written, simply leave a comment with the reason for your change.

1. How do we articulate and embed green software in general/corporate business and product strategy?

- What is the business case for greener web practices?
 - How does it reduce operational costs, reduce risks, increase brand affinity, increase efficiency, improve user experience, engagement & SEO, future-proof against regulation, attract talent, and offer a strategic differentiator?
 - What are the potential business and product development costs, trade-offs and mitigations, of greener web practices? E.g.:
 - less trackers = less impression driven ad revenue;
 - upskilling costs;
 - Possibly harder to stand out when compared to a flashier competition
 - refactoring costs and benefits;
 - additional development time/costs for green "extras" like carbon awareness, energy measurement, new equipment, or offset automations.
 - maintenance costs
 - How do we connect digital emissions and savings to bottom line commitments and goals?
 - A concrete measure of ESG initiatives
 - Anecdotally, I've heard benefits for recruiting/retention.
 - Greater customer trust
- How do we "sell" greener web practices to external clients?
 - Have more leading brands (aka Patagonia) talk about why they have invested in a greener site
 - The business case logic above might play a part here, but are there other incentives, friction points or approaches?
 - Incorporate in procurement best practices of government and industry?
 - The case for silently incorporating green practices by default, rather than selling them as an extra. Or "green by default" practices could be silent, but extra green features like "green mode" or carbon awareness might be extras?
 - We can try to get impact scorecards to reference a Green Web & ICT standard as part of their process.

- Consider objective third-party certifications (B Corp, GSF, etc.) to add credibility to your claims.
- How do we connect digital emissions to mandatory, voluntary and impact investor driven ESG disclosures and goals?
 - This will definitely include scopes 2 & 3 emissions, but if we address software driven hardware obsolescence it might address a much broader range of ESG impacts from ecological footprint to social costs of extractive industries.
 - How do digital emission impacts, budgets and savings connect to ESG standards and frameworks like Global Reporting Initiative (GRI), EU Sustainable Finance Disclosure Regulation (SFDR), Task Force on Climate-Related Financial Disclosures (TCFD), U.N. Sustainable Development Goals (SDGs) Reporting Standards, or the forthcoming strengthened SEC climate reporting standards?
 -

2. How do we incentivise and mainstream green development practices in our workforce?

- Performance related pay or bonuses linked to green targets
- Allocated hours toward good causes (similar to the side project scheme)
- Encourage remote working and honest employee feedback
- Departmental, product, team carbon budgets
- Board level reporting
- C-level ownership ([CSO](#))
- Include sustainability targets as part of company budgeting and reporting for digital projects
- Align digital strategy with climate strategy, especially in marketing
- Incorporate an [Impact Business Model](#) to operationalize more sustainable digital products and services
- Consider adopting an existing framework like [CDR](#) or similar; create a digital-specific company code of ethics.

3. How do we embed green web design into our product development lifecycle?

- Integrating green criteria into our Definition of Done
 - Defining how the definition of done is circular - are we ever done?
 - Dedicate resources and budget so teams can incorporate good sustainable governance principles into existing product management practices
 - Similarly, budget for user testing and 'just enough research' to reduce churn and improve adoption rates
 - page budgets and public reporting
 - backward compatibility/progressive enhancement requirements
 - no JS functionality
 - Smart caching with internet exchanges
 - offline functionality (service worker caching strategies)

- Built-in maintenance and audit cycles or dedicated sprints to address and reduce technical debt and improve sustainability metrics
 - Train entire product teams (project management, content, marketing, design, not just developers) on green software principles.
 - Similarly, prioritize digital resilience to include sustainability alongside data privacy, security, accessibility, etc. This will improve efficiency and reduce resources over time.
 - Making sustainability part of the culture of the organization and as an aspect of everyone's job where possible
 - etc.
- Integrating green static, profiling and dynamic analysis tooling into our software lifecycle
 - at the server/cloud level
 - at the code level (CI pipelines)
 - at the QA level (automated, manual, UAT)
 - Monitoring the monitoring - the monitoring energy is part of the delivery of the site
 - At the maintenance level
- Achieving the right balance of intensive computing tasks
 - Frequent and sophisticated enough CI pipelines to prevent defects and achieve metrics, but not so frequent that every commit generates a 3 hour energy hogging pipeline.
 - Time and location shifting of heavy compute jobs (migrations, backups, massive pipelines) to times and places with cleaner energy, and ideally stranded energy
- 4. How do we reduce the environmental impact of the software/product development process itself, as opposed to the application it results in?**
 - Policies and systems to minimise carbon footprint of devices used to build software
 - maximum utilisation, minimal redundancy, power management automations, hardware reuse and right to repair
 - the value of remote working to save on the environmental impact of commutes and energy costs of offices
 - Train entire teams on good lean/agile (small 'a') practices, not just those who implement features
 - Adopt sustainable data strategies that include clear equity and disposal practices
 - Clear e-waste, right-to-repair, and recycling policies
 - Good quality control and maintenance practices to minimise software waste as defects lead to excessive iterations

Also (from Mike G):

- We want a sustainability statement of intent

- Science based targets
- Do we want commitment not to work for fossil fuel companies?
- What about addictive software?

Other ideas (from Anne F.), more focused on practical processes in digital product management:

- **Let the development team choose the length of their Agile sprints.** When management imposes 2 week sprints on teams, they tend to rush the development therefore negatively impacting quality and research.
- **Introduce research sprints:** every x production sprint, include a sprint focused on user research, analysis of added value, cleaning the code, archiving, stepping back on the goals, self-auditing the service...
- **Adjust Definition of Done and Definition of Ready:** for example, a component cannot be defined as "ready" if it heavier than X Ko
- **Add new tests before implementation:** code review, testing in low connection, on devices older than 5 years...
- **Complete tests after implementation:** if a feature is not used or if user tests indicate it adds no almost no value, remove it
- **Add criteria to your user stories:** a functionality should not be added if it is not used by at least X% of the user base
- **Introduce non-user stories:** design for the planet, for impacted stakeholders and other non-users...
- **Prioritize your backlog according to the 3Ps:** people, planet, profit
- **Add sustainability goals in your OKR**

→ Let me know which you think are relevant and I can write them in the right template

Other ideas (from Claire T..) also more focused on practical processes in digital product management:

- **Let the team decide on the agile methodology.** A lot of time is lost on forcing teams, especially smaller teams, to work in a specific methods such as Scrum, this can result in decreased efficiencies
- **Avoid Product Managers becoming backlog managers or feature factories** Product Managers should focus on delivering products that prioritise 3Ps rather than delivering more and more features because the business dictates it
- **Consider the unintended consequences in the discovery phase** products are mostly built based on user research that is tested on the specifically defined User group, solving a specific problem. But products can be abused or used for bad, that the product team may not have foreseen or considered. How can this be avoided
- **Implement Content Lifecycle Management** one of the reasons why a lot of software becomes bloated is often due to content. When considering websites this is mostly created by marketing teams - a lot of content is put on the web and never removed - just as those features that are not being used should be removed, the content that is not

being consumed should be removed. If necessary to keep the content online then at least remove all the imagery

Marketing also falls into the category of business - should we add a section on digital marketing? Or at least add it in the section of Performance budgets - that the marketing team should also consider these when they are building their marketing campaigns?

→ Let me know which you think are relevant and I can also add them in the appropriate sections

Rough ideas:

1.1 Define goals

1.2 Digital sustainability statement on website

1.3 CO2 metrics calculated and reported with annual reporting documents

1.4 Commitment to work with 3rd party suppliers that host on green servers and have digital sustainability plans

1.5