

Kurs i standardisering

Komitéarbeid

4. og 11. november 2026

Standard Norge

Komitéarbeid

4. og 11. november 2026

Standard Norge

Komitéarbeid 4. november 2026

- Velkomst og innledning
- Standardiseringsarbeid, ulike leveranser og prosjektstyring
  Anna Solnørdal
- Deltakelse og påvirkning
  Ingerid Zeiner
- Spørsmål og kommentarer



Komitéarbeid 11. november 2026

- Standarder og regelverk, begreper og mandat
  Einar Morten Lassesen
- Å skrive en standard
  Anna Solnørdal
- Effektiv bruk av verktøy
  Anna Solnørdal
- Spørsmål og kommentarer



Standardiseringsarbeid

Standard Norge

Komitédeltakere - standardiseringens viktigste ressurs

Delta i tekniske komiteer (TC/SC)

- Planlegging, styring og beslutning
- Rolle: delegat

Delta i speilkomiteer (SN/K)

- Standpunkt på vegne av nasjonale interesseparter
- Rolle: komitédeltaker

Delta i arbeidsgrupper (WG)

- Utarbeide standarder
- Rolle: ekspert

Delta i nasjonale komiteer (SN/K)

- Planlegging, styring, beslutning og utarbeide standarder
- Rolle: ekspert og komitédeltaker

Fordelene ved å delta i standardiseringsarbeid

Nordiske selskaper deltar i standardiseringen for nettverksbygging og for å forberede seg på framtiden.



Ressursbruk ved å delta i standardiseringsarbeid

Aktiv deltakelse internasjonalt

- Lede eller delta i en internasjonal komité eller arbeidsgruppe (TC, SC, WG)
- > 80 timer per år + reisekostnader
  (1 TC/SC og 2-3 WG møter internasjonalt)
- Stor innflytelse og kunnskap om innholdet

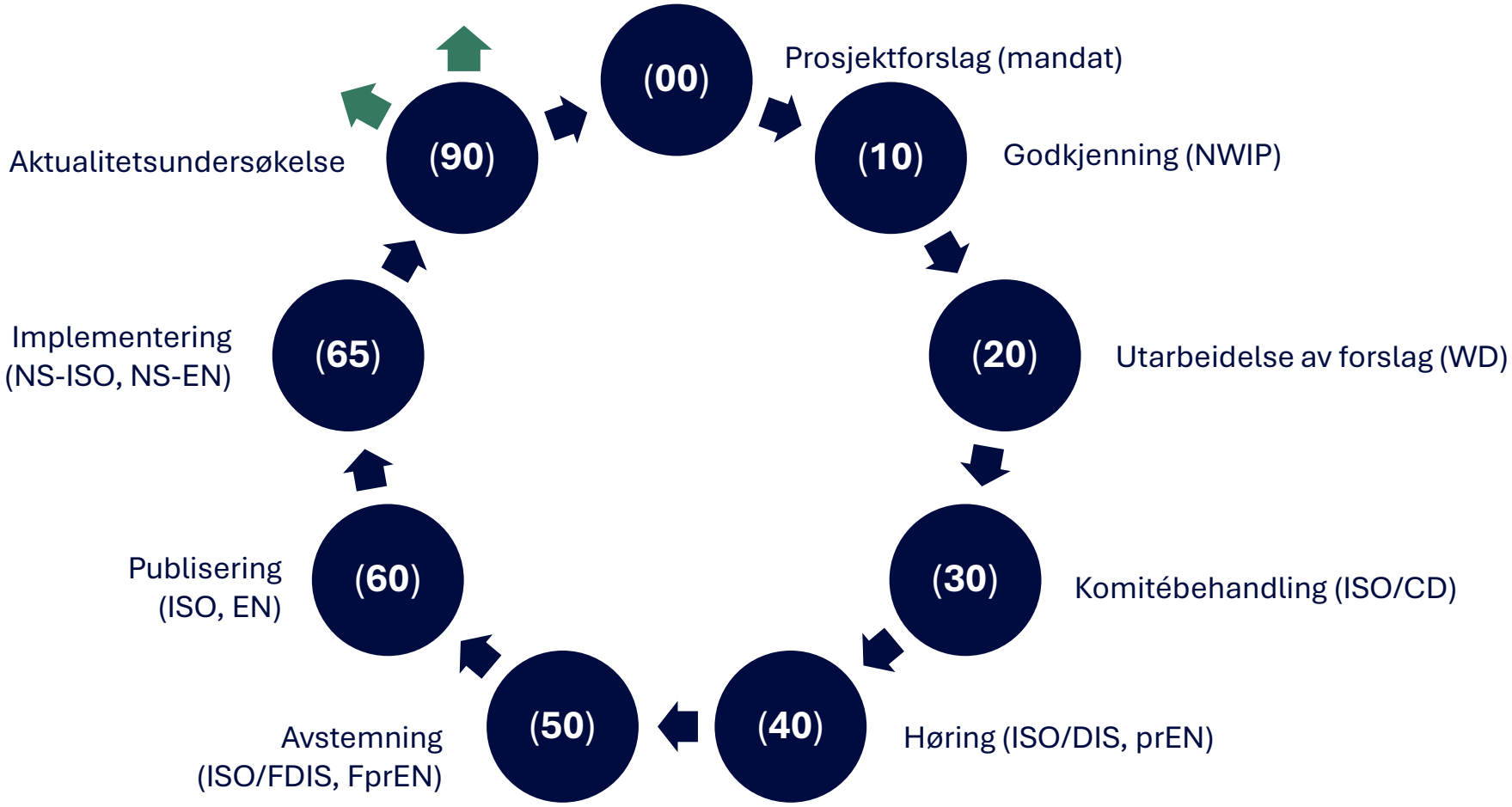
Aktiv deltakelse nasjonalt

- Delta i den norske (speil)komiteen SN/K-komité
- Høringer/kommentarer
- Støtte og påvirkning via de norske ekspertene som deltar i CEN/ISO
- > 40 timer per år, 1-4 norske møter (speilkomité)
- > 100 timer per år (nasjonal standard)

Informasjon/ oppdatering

- Lese og kommentere på høringsforslag
- Tilgang til ferdige standarder

Hvordan lages en standard?



Regler for avstemning over standardforslag

Ja

- Må ikke begrunnes
- Ikke mulig å stille betingelser
- Mulig å kommentere

Nei

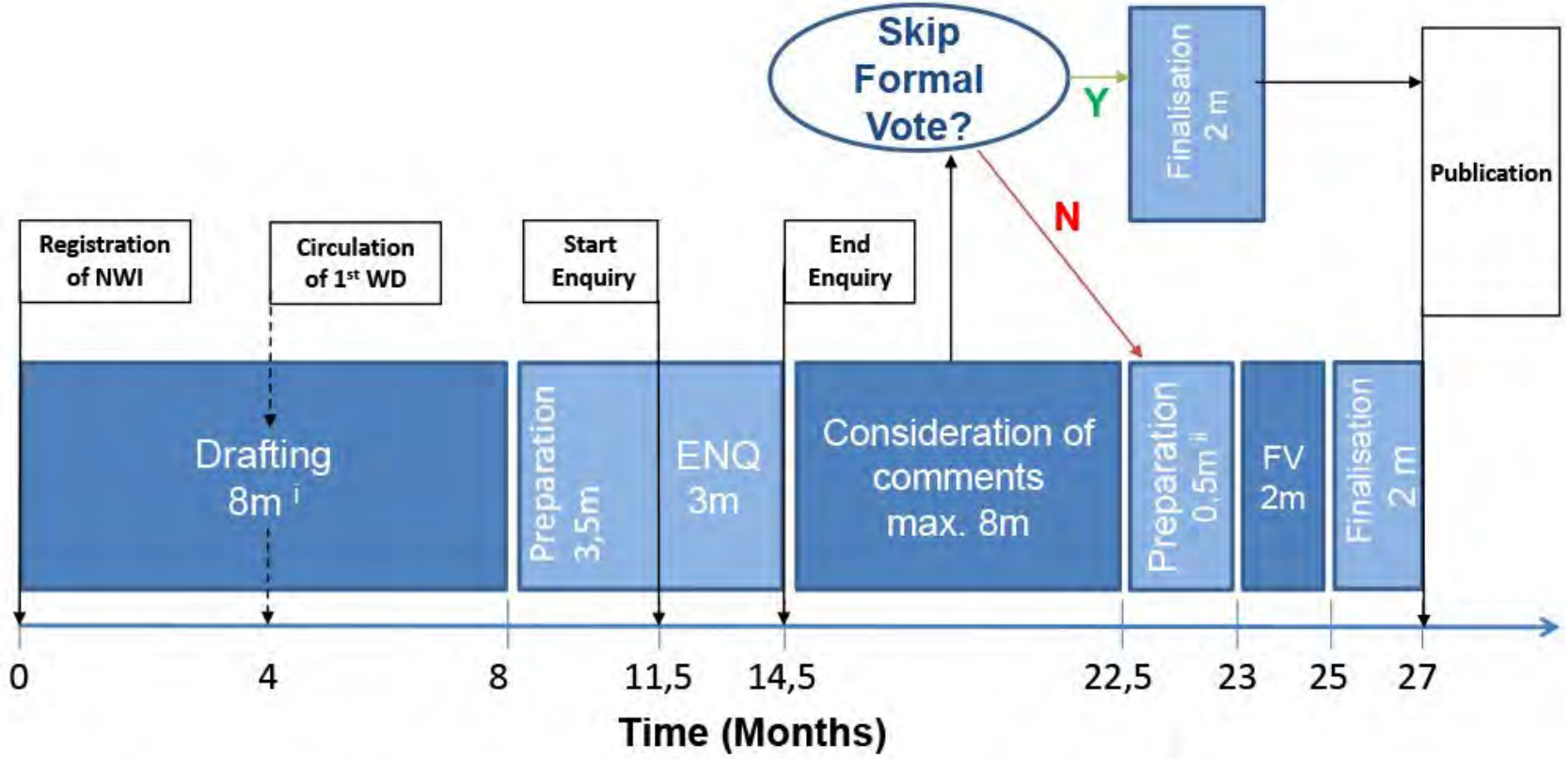
- **Må** begrunnes med tekniske kommentarer

Avstår

- Må ikke begrunnes
- Brukes oftest når det ikke er nasjonal interesse, ingen norsk ekspertise eller konsensus

Ved «ja» på høring, forventes det ja på avstemming med mindre forslaget **er vesentlig endret** (burde i tilfellet vært på andre gangs høring).

Produksjonstid for en standard (CEN)



[i] Possibility to be extended to 12 months
[ii] Translation previous to Formal vote is optional. If translation is necessary 1,5 months need to be added

Produksjonstid for en standard (ISO)

	6 stages	Action	Balloting time	Default path	Shortest path
1	Proposal NP	Proposal to start a new project	• 12-week ballot by default • 8-week ballot possible • TC/SC resolution for revision & amendments	NP	NP Straight to DIS
2	Preparatory WD *	Expert consensus within working group		WD	
3	Committee CD *	Committee consensus	• 8-week ballot by default • 12 or 16-week vote possible • Can be skipped	CD	
4	Enquiry DIS	ISO MB consensus	• 8-week translation • 12-week ballot	24 months to reach DIS	12 months to reach DIS
5	Approval FDIS *	YES or NO vote	• Skipped by default • Can be introduced • 8-week ballot	FDIS	
6	Publication	ISO International Standard		Up to 36 months IS	Down to 9 months IS

* OPTIONAL

Sec. Admin. (CIB)

ISOCS Admin.

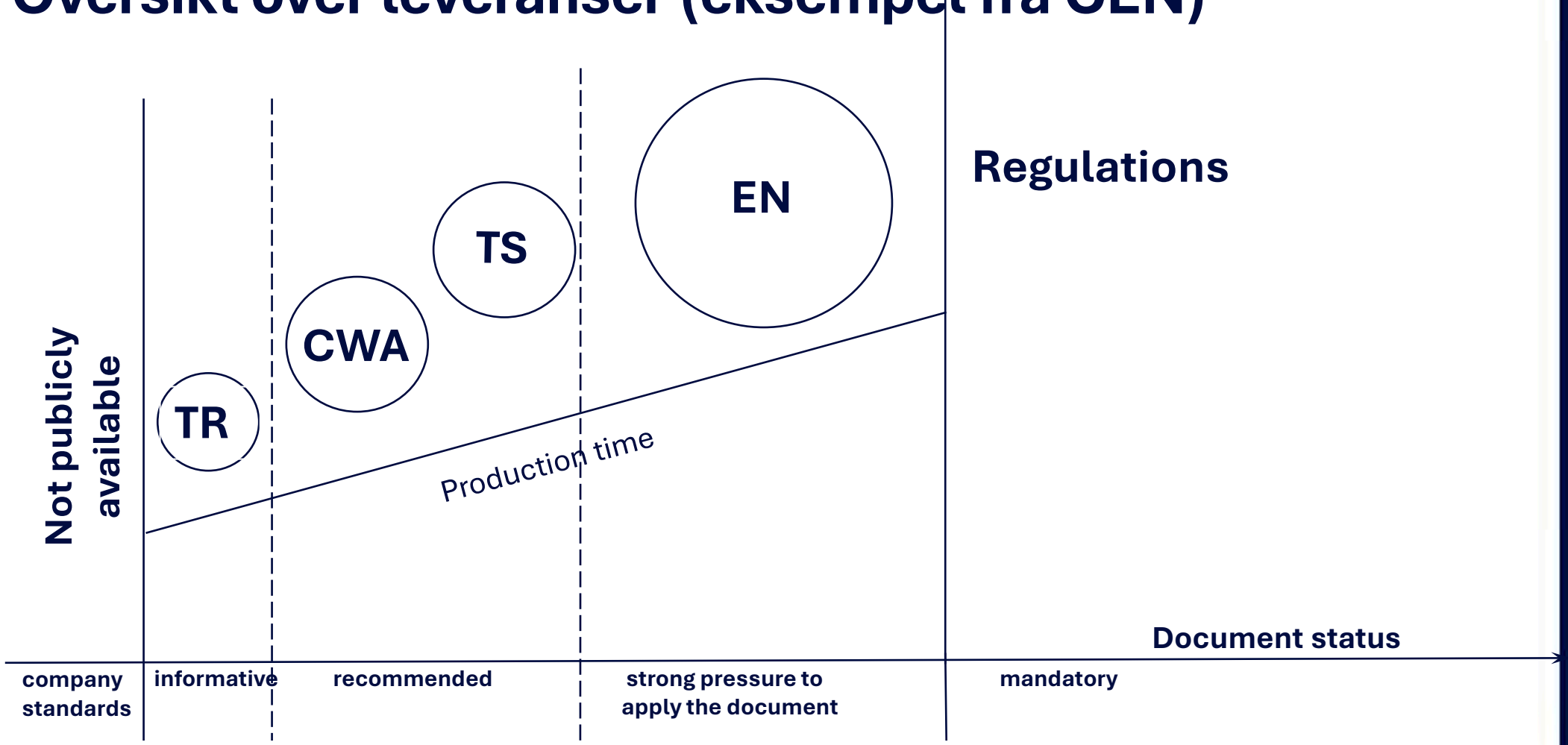
Oversikt over leveranser

- **Standard (NS, EN, ISO)**
- Teknisk spesifikasjon (TS)
- Workshopavtale (WA, CWA, IWA)
- Teknisk rapport (TR)
- Guide

- Nasjonalt tillegg
- Blankett
- Norsk Spesifikasjon (NSPEK)

- Veiledning
  - Utarbeides for å lette bruken av en standard

Oversikt over leveranser (eksempel fra CEN)



Oversikt over leveranser – forskjeller og likheter (eksempel fra CEN)

	EN	CEN/TS	CEN/TR	CWA	CEN Guide
Technical or other Body (initiation)	CEN/TC	CEN/TC	CEN/TC or BT	CEN Workshop	BT or CA
Participation	Through National delegations	Through National delegations	Through National delegations	Through direct participation	Through National delegations
Interests represented	All	All	All	Specific	All
Standstill	Yes	No	No	No	No
Public Enquiry	Yes – 3 months	No	No	No	No
Level of approval	National members	National Members in CEN/TC	CEN/TC or BT	Workshop participants	AG, CA or BT
Rule for approval	Weighted vote	Weighted vote	Simple majority	Agreement amongst participant	Simple majority
National announcement	Yes	Yes	Optional	Yes	Optional
National availability	Yes	Yes	Optional	Optional	Optional
Publication	National Standard	Optional	Optional	Optional	Optional
Withdrawal of national conflicting standards	Yes	No	No	No	No
Languages	3 official languages	At least one official language	At least one official language	At least one official language	At least one official language
Review	5 years maximum	3 years plus 3-year confirmation	No limit, but shall be reviewed	3 years + 3 years (max 6 years)	No limit, but shall be reviewed

Prosjektstyring i komitéarbeidet

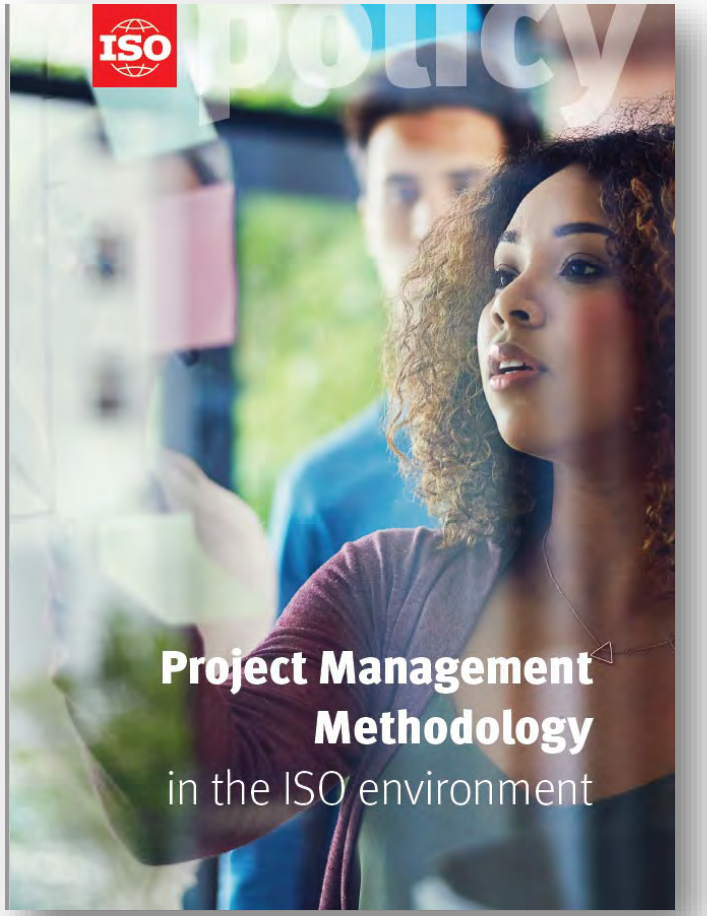


Prosjektstyring i komitéarbeidet

Project management – Methodology

- ISO 21500 for prosjektledelse anvendt innenfor standardisering
- Følger et prosjekt fra forslag – planlegging – utvikling – kontroll – lessons learned

- Brosjyren finnes som eget vedlegg i kompendiet

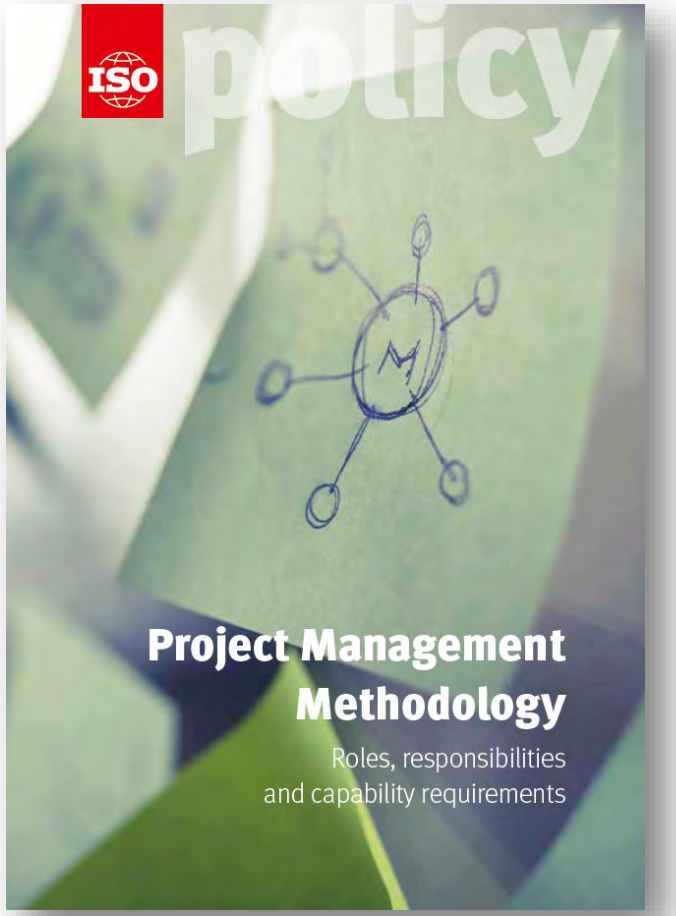


Prosjektstyring i komitéarbeidet

Roles, responsibilities and capability requirments

- Klargjør rolle og ansvar for de som leder en komité, arbeidsgruppe eller prosjektgruppe
- Hvilken kompetanse ledere bør ha (og hva du som deltaker kan forvente)

- Brosjyren finnes som eget vedlegg i kompendiet



Opplæring i standardisering

Nasjonale kurs

- Introduksjon til standardisering (fysisk)
- Komitéarbeid (digitalt)
- Digitalt kurs om standardisering

ISO

- Chair og convenor (digitalt)
- Committee Managers

CEN

- Chair og secretary (fysisk)



Prosjektstyring i komitéarbeidet

«Code of ethics and conduct» for alle deltakere

- Selv om reglene ikke dekker enhver tenkelig situasjon, er målet å gi en ramme og et grunnlag for forventet atferd
- Reglene setter normen for hvordan blant annet medlemmer av standardiseringsgrupper, og samarbeidsorganisasjoner av ISO skal opptre

Generelle prinsipper «Code of ethics and conduct»

1. Samsvare med juridiske og lovbestemte forpliktelser
2. Opptre og handle i god tro, i samsvar med organisasjonens formål, policyer og prinsipper
3. Opptre etisk
4. Fremme og muliggjøre at alle stemmer blir hørt
5. Delta på en konstruktiv måte i ISO-aktiviteter
6. Opplyse om faktiske og potensielle interessekonflikter og håndtere dem hensiktsmessig
7. Beskytte konfidensiell informasjon
8. Beskytte ISO-ressurser
9. Unngå og forhindre alle former for bestikkelser eller korrupsjon
10. Løfte og løse tvister (uenigheter) og støtte avtalt løsning

Obs! Ikke offisiell norsk oversettelse

Internasjonale forpliktelser

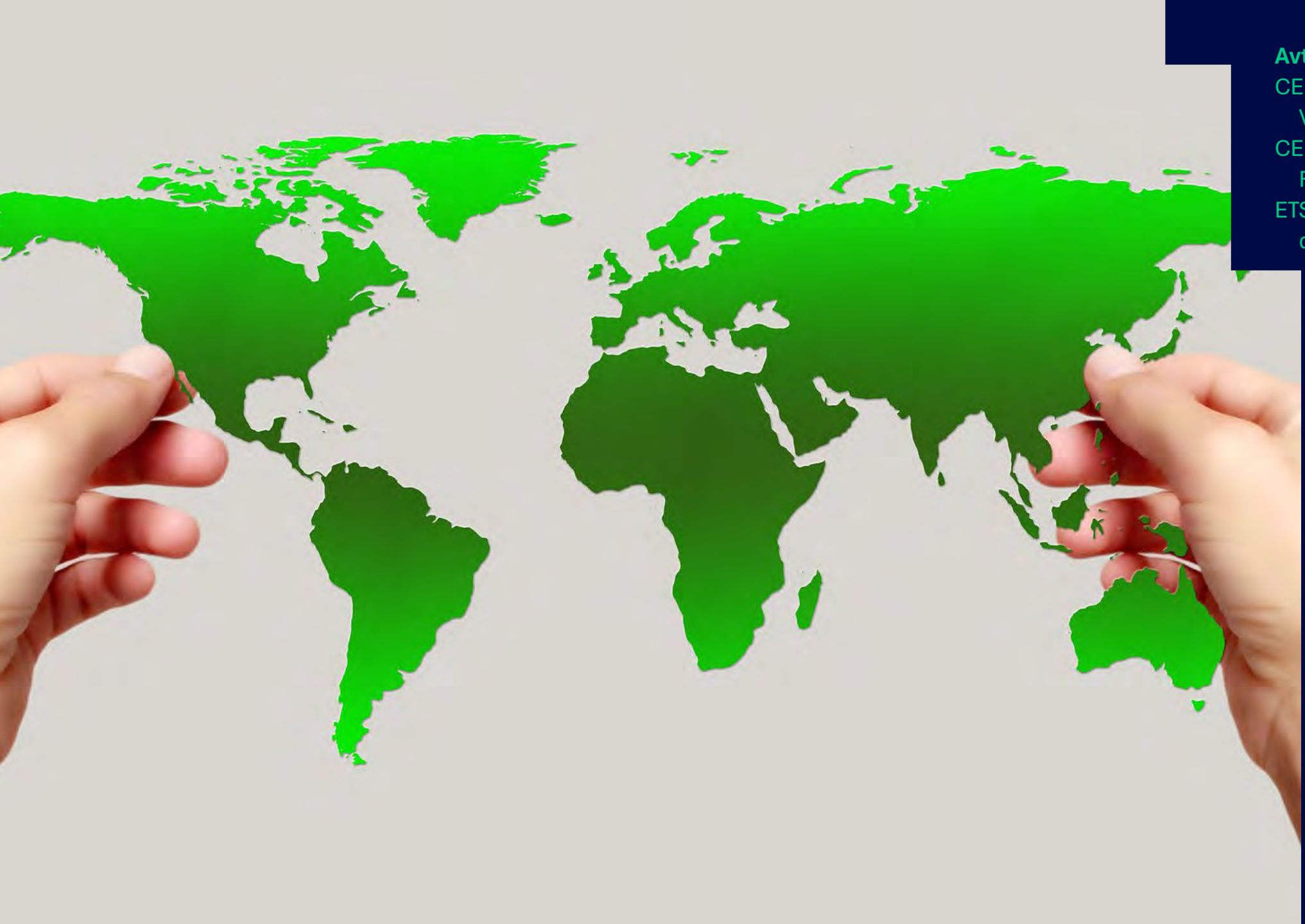
Oppfølging av ISO

For ISO skilles det mellom

- P = participating
  - Vi deltar aktivt, har tilgang til dokumenter og er forpliktet til å stemme
  - Må være P-medlem i nærmeste SC eller TC for å få lov til å delta i en WG
- O = observer
  - Vi følger arbeidet, har tilgang til dokumenter og kan delta på møter i TC-en
  - Kan stemme (men begrenset betydning)
- Ikke medlem
  - Vi har ikke interessenter og ikke tilgang til dokumenter
- Det er frivillig å fastsette internasjonale standarder (ISO) som Norsk Standard

Oppfølging av CEN

- Standard Norge har plikt til å
  - Varsle om nye nasjonale prosjekter
  - Varsle dersom standard er i konflikt med nasjonalt regelverk (A-avvik)
  - Stemme på høring og avstemning
  - Utgi alle standarder (EN) som Norsk Standard (NS) med norsk tittel
  - Stillstand – stoppe nasjonalt arbeider dersom det er i konflikt
- Skiller mellom komiteer avhengig av interesse
  - Norske deltakere og norsk speilkomité
  - Norske deltakere, men ingen speilkomité
  - Ingen nasjonal interesse eller deltakelse



Avtaler om tekniske samarbeid

CEN og ISO

Vienna agreement

CENELEC og IEC

Frankfurt agreement

ETSI og ITU

diverse avtaler

Aspekter å ta hensyn til i standardisering

Aspekter å ta hensyn til

- Bærekraft og miljø
- Universell utforming (inkl. eldre)
- Forbruker
- Kjønnsperspektiv
- Små og mellomstore bedrifter (SMB)
- Arbeidstaker
- Ved utarbeidelse av Norsk Standard er det krav om å bruke sjekkliste
  - Bærekraft
  - Universell utforming
  - Forbruker
  - Kjønnsperspektiv



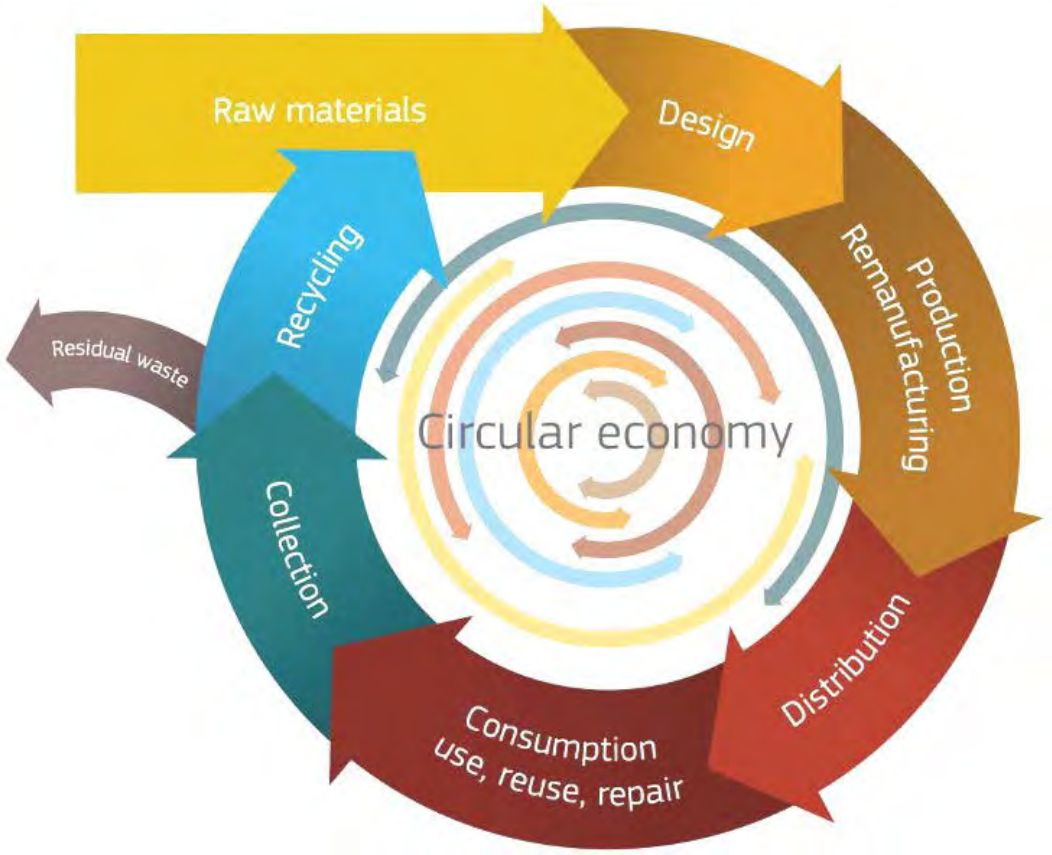
Spesielle rettigheter for påvirkning i CEN

Forbruker	▪ **ANEC** ▪ Forbrukerrådet
Miljø	▪ **ECOS** ▪ Bellona
Arbeidstaker	▪ **ETUC** ▪ LO, UNIO, YS
SMB-er	▪ **SBS** ▪ Norsk Industri

Dedikert kommentarmulighet når en standard er på høring og avstemning

Miljøhensyn (1) – forankring

- EU-kommisjonen:
  - Strategi for reduksjon av miljøpåvirkning fra produkter
  - Økodesigndirektivet
- Vedtak i CEN
  - Inn i komiteenes forretningsplan
  - Inn på dagsorden på komitémøter
- Standard Norge strategi



Miljøhensyn (2) - hjelpemidler

- **ISO Guide 64/CEN Guide 4** Guide for håndtering av miljøspørsmål i produktstandarder
- **IEC Guide 9** Environmental aspects - Inclusion in electrotechnical product standards
- **ISO Guide 82** Bærekraft
- **ISO Guide 84** Klimaendringer
- **CEN Guide 32 og 33** Klimaendringer og miljø
- **CEN Environmental helpdesk**

Universell utforming (1) - forankring

- Diskriminerings- og tilgjengelighetsloven 1. januar 2009
  - Nye forskrifter for eksempel knyttet til bygg og IT
- FN-konvensjonen om rettigheter for personer med funksjonsnedsettelse
- CEN/CENELEC og ISO har en egne strategiske arbeidsgrupper for UU
- EU/EFTA har gitt mandat til CEN/CENELEC (f.eks.)
  - M/376 IKT og offentlig anskaffelse
  - M/420 Bygg og uteområder
  - M/473 Design for all (varer og tjenester, hele verdikjeden)
  - M/554 Tilgjengelighet til nettsider og mobile applikasjoner

Universell utforming (2) - hjelpemidler

- **NS-EN 301549** Tilgjengelighetskrav for IKT-produkter og -tjenester
- **ISO/IEC Guide 71** Guide for addressing accessibility in standards (= CEN/CENELEC Guide 6)
- Protokoll for å ivareta krav til UU (CEN)
- Flere nasjonale standarder
  - **NS 11001** bygg/byggverk, **NS 11005** uteområder, **NS 11030** tjenester, **NS 11031** krav til busser, **NS 11040** brukermedvirkning på IKT-området, **NS 11201** Mangfoldsledelse

Forbrukerhensyn (1)

- Sikre at sluttbrukernes og allmennhetens behov vektlegges ved utforming av standarder
- Behov
  - Helsekrav, miljøkrav og sikkerhetskrav
  - Funksjonalitet og kvalitet
  - Informasjon og advarselsmerking
  - Gjenkjennelse og forutsigbarhet
  - Klagebehandling
  - Kompetansekrav til tjenesteleverandør



Forbrukerhensyn (2) - hjelpemidler

- **ISO Guide 41** Emballasje
- **ISO/IEC Guide 14** Kjøpsinformasjon for varer og tjenester
- **ISO/IEC Guide 50** Sikkerhet for barn
- **ISO/IEC Guide 51** Sikkerhetsaspekter generelt
- **ISO/IEC Guide 74** Grafiske symboler
- **ISO/IEC Guide 76** Utarbeidelse av standarder for tjenester – Anbefalinger for å ta hensyn til forbrukerspørsmål
- **CEN Guide 11** Forbrukerinformasjon
- Se egen oversikt under **forbruker** på www.standard.no
- For økt forbrukerdeltakelse i nasjonalt og internasjonale prosjekter bevilger Barne- og familiedepartement reisestøtte, se https://www.standard.no/fagomrader/forbruker1/forbruker/reisestotte/
  Ordningen administreres av forbrukersekretariatet i Standard Norge



Ta hensyn til kjønn når det er relevant

Kjønnsperspektivet i standarder

- Ulikheter mellom kjønnene kan ha betydning for innholdet i standarden
- Veiledning for standardiseringskomiteer
  - Forklarer hva dette er og hvorfor det er viktig
  - Eksempler på hvordan standardene kan tilpasses og omfatte begge kjønn og hva komiteene konkret må gjøre for å ta hensyn til kjønn
  - Skjema for dokumentasjon hva som er gjort i komiteen knyttet til kjønn
- ISO/IEC Guide 79 Gender responsive standards



Små og mellomstore bedrifter

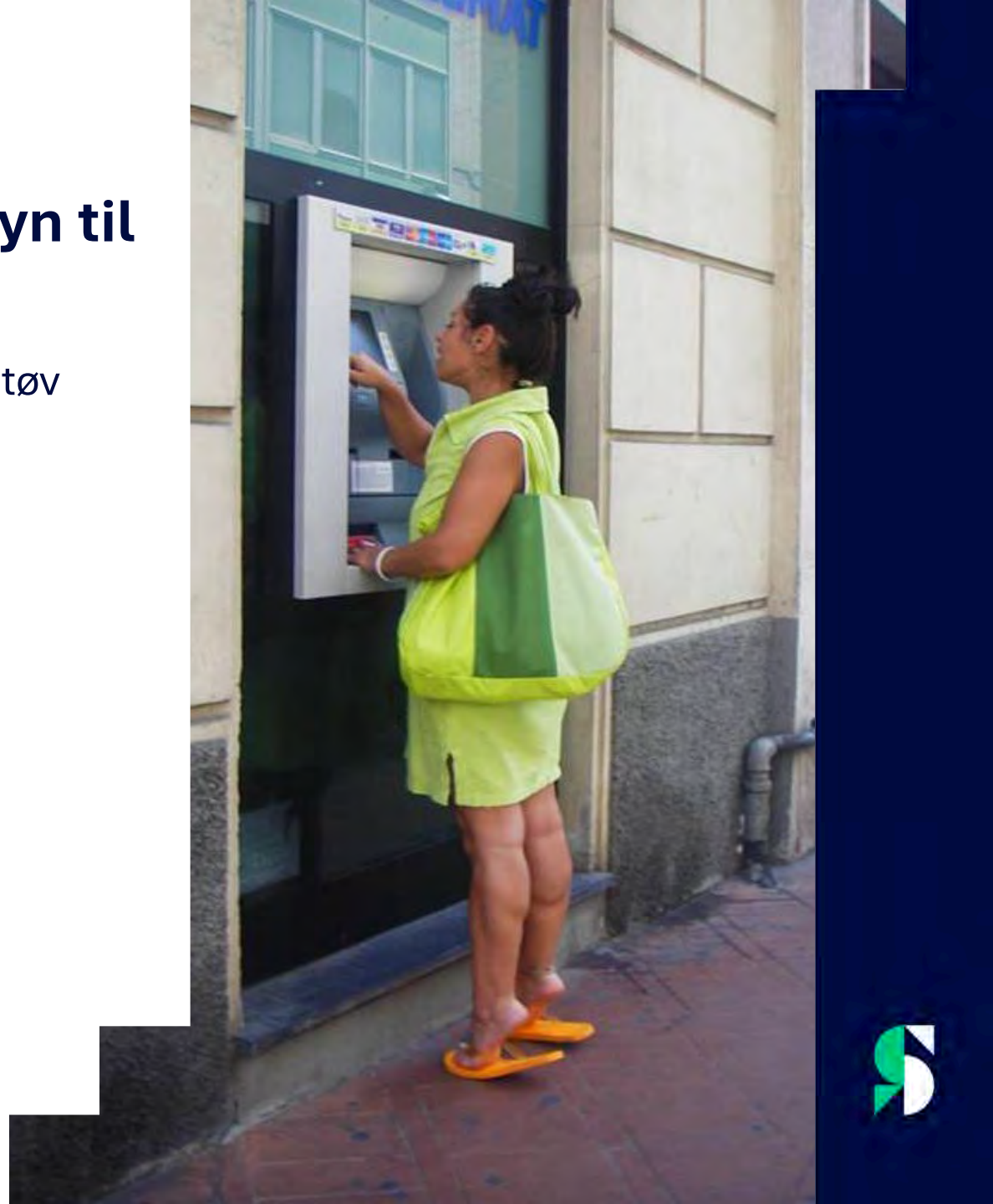
- **SN-CEN/CENELEC Guide 17** Rettleiing i å skrive standardar som tek omsyn til mikro-, små og mellomstore bedrifter (SMB) og deira behov
- 99 % av alle bedrifter i Europa er små og mellomstore
  - SMB = mindre enn 250 * ansatte og inntil 50 mill EUR i omsetning
  - SMB er ofte underrepresentert i internasjonal standardisering på grunn av begrensede ressurser
- Standarder er viktig for SMB
  - unik tilgang til teknisk ekspertise
  - beskriver beste praksis innenfor et gitt område
  - men oppleves krevende å implementere en standard
    - tungt teknisk innhold
    - omfang av krav
    - utgifter til nytt utstyr, opplæring, prøving og kontroll

* Europeisk definisjon, i Norge brukes vanligvis 100



Eksempler på aspekter å ta hensyn til

- Norsk Standard for stillaser
  - Krav til materialer, gjenbruk, oppsamling støv
  - Krav om merking av stillaser i gateplan
- Byggevarer
  - Innhold av farlige stoffer
- Standard for tjenester
  - Tilgjengelighet av tjenesten
  - Klagebehandling
  - Etikk



Oppgave (selvstudie)

- Er miljø, FNs bærekraftsmål, kjønnsperspektiv, UU, forbruker eller SMB relevant for «din» standard?
- Hvordan kan dette bli inkludert?
- Hvordan løste dere det i komiteen?





Project Management Methodology

in the ISO environment



Preamble

ISO/IEC Directives Part 1, clause D.2

A National Body to which a secretariat has been assigned shall recognize that, no matter what arrangements it makes in its country to provide the required services, it is the National Body itself that is ultimately responsible for the proper functioning of the secretariat.

Introduction

Project management helps to effectively use the resources of the voluntary experts committed to participate in standardization projects.

A challenge for the experts is time and money. By making sure that project development activities and meetings are planned and scheduled early in the process, planning of money and resources will be easier for the participants, and the commitment required of them will be clarified.

Project management is a tool which aims to support the overall objectives of standardization:

- the development of market relevant standards
- with high quality, valid technical content and
- which represent consensus of the participating stakeholders.

Finally, project management facilitates timely development of standards.

This methodology provides the framework for project management when developing ISO documents. This methodology is a customised approach from ISO 21500:2012, "Guidance on project management" which is the reference in terms of concepts and processes of project management that are important for, and have impact on, the performance of projects.

The target readership for this methodology is Committee Managers, to provide them with the necessary elements of project management culture. It aims to improve understanding of the principles and practice of project management. The methodology helps Committee Managers to undertake their responsibilities and to give appropriate support and guidance to their committees, Convenors, Working Groups (WG) and Project Leaders. Should there be a need to go further into the implementation of project management methodology for your committee or your project (for instance: risk management, lessons learned, WG team-building, etc.), or if you just want to learn more, you can find relevant solutions in **ISO 21500**.

1. Overview of the project management process applied to ISO standards development

The phases and project stages are in line with **ISO 21500:2012**.

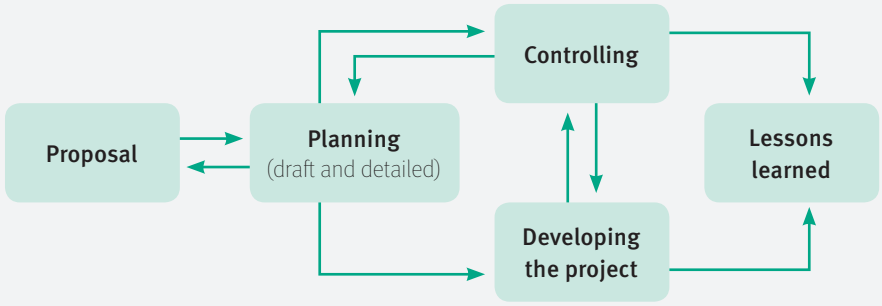


Figure 1 – Process groups interactions (Figure 5 [modified], ISO 21500:2012).



		Stage								
		NP		Drafting, DIS & preparation of final text			Pub.	Continuous process		
	Task	Proposal	Planning: Draft project plan	Planning: Detailed project plan	Developing the project	Controlling	Lessons learned	Portfolio management	Project management	Committee management
Role	Proposer	R	R							
	Committee Manager	C	C	R		R	R	R	R	R
	Project Leader/ Convenor; Chair	C	C	C	R	C	C	C	C	C
	Committee and/or WG[a)]				C		C	C	C	C
	ISO TPM	The ISO Technical Programme Manager (TPM) provides support and guidance at all stages and for each role and ensures the ISO/IEC Directives are followed								

R = Responsible | C = Cooperation

Table 1 – Responsibilities matrix.

NOTE: **Cooperation** does not imply a secondary role nor passivity. For instance, the Project Leader has a key role to play in drafting a project plan due to her/his availability to deliver the draft. **Responsible** means triggering the activities, making sure the tasks are performed, organizing the inputs of the different roles.

a) depending on the development step and if the project is allocated to a WG or not.



2. Preparation of the proposal

The preparation of a proposal is the initiating step in the process of creating an International Standard. The need for a proposal may arise from the market need for a new project, or a revision of an existing standard. The aim of the proposal is:

- to give an overview of the project
- to link the project to the strategic objectives of the committee
- to identify the project leader
- to identify the stakeholders
- to document the business needs
- to reach consensus within the committee on: project scope and expected deliverables; the rough budget needed for the project (expected number of meetings if any, availability of experts, expected numbers of consultations of the project etc.); the expected publication date of the document based on market needs.

NOTE: Scope and deliverables, budget needed, and expected publication date of the documents are three interrelated constraints. See **Annex B** for further details on the interrelations.

A proposal/revision resolution together with a draft project plan (see **3.2**) serves as a basis for the approval of the project.

Who	Proposer and Committee Manager (see **Table 1**)
What	Define the project (scope and deliverable, justification of the need, time frame, milestones, stakeholders and coordination aspects, etc.)
How	▸ The proposer provides the Committee Manager with a draft proposal: scope, deliverable, justification of the need, stakeholders and coordination aspects, rough milestones (when is the draft and/or standard needed) ▸ The Committee Manager checks the content of the draft proposal ▸ The Committee Manager and the proposer prepare the final proposal for circulation within the committee (with the contribution of the Project Leader; Chair, WG Secretary/Convenor if available) ▸ The Committee Manager and the proposer perform a risk assessment to identify potential problems in advance (for example, see the check list in **Annex C.2**) from the discussion the Committee Manager proposes an appropriate development track (based on market needs), key milestones and the proposed date of the first meeting (and the number of anticipated face-to-face meetings)
When	Prior circulation of the NP within the committee
Result	**Form4**[1] or a revision resolution
Reference	▸ **ISO/IEC Directives Part 1**, 2.1.2, 2.1.6.1, 2.3.4 ▸ **ISO 21500:2012**, 4.3.2

Table 2 – Preparation of the proposal.

1) If necessary, an ad-hoc group of the committee can be established to review the proposal before submitting it for approval to the committee (see **ISO/IEC Directives Part 1**, clause 2.3.4).

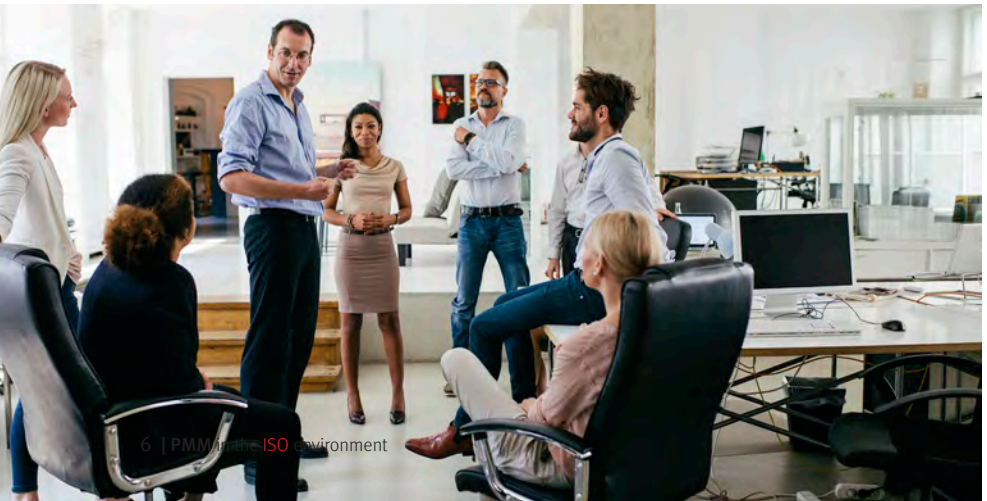


3. Planning of the project

3.1. General

Planning is a process to develop details of the development stages and related activities which will serve as a baseline for controlling the progress of the document and timely delivery. The planning process is important for the Committee Manager to have an overview of the project and its milestones and to anticipate the development of the project within the portfolio, according the priorities of the committee (Strategic Business Plan – SBP). The planning process is also important for the Convenor/Project Leader and the experts joining the work to identify when they will need to be available for the project (contribution, drafting, commenting, meeting, etc.). This enables anticipation and better coordination with their day-to-day workload. It is also helpful for the national mirror committees to anticipate the need for national consultations and national meetings. The purpose of the project plan is to document the following:

- **WHAT** will be delivered (modified draft, resolution of comments, decision etc.)
- **HOW** it will be delivered (consultation period i.e.: CIB, DIS etc., meetings, etc.)
- **WHO** will provide it (Convenor, Project Leader, Committee Manager, experts, committee members, etc.)
- **WHEN** will it be provided (target and limit dates, consultation time, meeting dates, etc.)





A draft project plan is provided during the proposal stage and is later refined into a detailed project plan during the development stage. For a new project, the milestones set in the draft project plan could be substantially modified due to issues that were not predictable at NP stage.

The target dates of the project plan shall be documented in the ISO Projects application as soon as the project is approved and continuously updated during the development.

3.2. Developing a draft project plan

The draft project plan provides potential experts with the estimated workload during the project. This assists them to coordinate their other responsibilities and commitments. The acceptance of the draft project plan and therefore the commitment to the milestones is part of the NP ballot.

Who	▸ Committee Manager (responsible) (see **Table 1**) ▸ Project Leader (preparing and maintaining the plan with contribution from WG Secretary, if any)
What	▸ Rough planning ▸ Define key milestones (WD and CD stages, DIS and expected publication), date for kick–off meeting, rough meeting schedule (YYYY-MM) ▸ Consider possible/obvious risks impacting the development of the project (see **Annex C.1**, typical risks and check-list) ▸ Get commitment from experts
How	▸ With contribution from the proposer ▸ Set milestones in accordance with market needs and expectations as well as the ISO/IEC Directives ▸ Consider the workload of the committee, its priorities or strategic objectives (SBP), and the availability of the Project Leader and experts ▸ The Committee Manager and the Project Leader perform a risk assessment to identify potential problems in advance that would impact the development of the project (more or fewer WG meetings needed, optional steps to prepare DIS, etc.) Experience with similar projects or using the check list in **Annex C.2**, which can be the basis of a risk register, may be helpful ▸ Set a date for the kick-off meeting together with the proposer or proposed Project Leader ▸ Fix a rough meeting schedule (on monthly basis) and identifying the number of anticipated face-to-face meetings, together with proposer or proposed Project Leader ▸ State in the NP ballot/Form 4 that approval of the ballot means commitment to the proposed project plan
When	Prior to circulation of the NP within the committee
Result	▸ Draft project plan ▸ Commitment of the experts to the draft project plan ▸ Comments from committee on the plan
Reference	▸ **ISO/IEC Directives Part 1**, 2.1.6.1, 2.3.4 ▸ **ISO 21500:2012**, 4.3.3

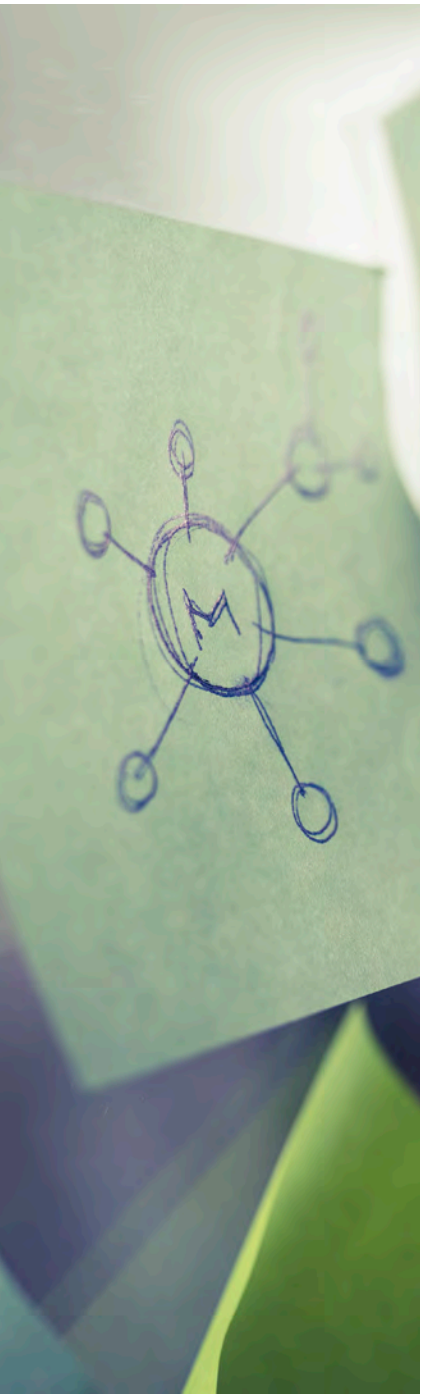
Table 3 – Developing a draft project plan.

3.3. Developing a detailed project plan

The detailed project plan is developed based on the draft project plan and comments received from the committee. The goal is to enhance the project plan with more detailed information. It serves as a tool to measure and manage progress during the development process.

Who	▸ Committee Manager (responsible) (see **Table 1**) ▸ Project Leader (preparing and maintaining the plan with contribution from WG Secretary, if any)
What	▸ Detailed planning ▸ Refine the time frame: additional dates (meetings, circulation of drafts and meeting documents, WG internal reviews, Tasks and To-do's including deadlines, etc.) ▸ Keep record of responsibilities within the project/project team (e. g. responsibility for certain parts of the document)
How	▸ Consider and update if necessary the anticipated potential problems (risk analysis) ▸ The key milestones defined in the draft project plan are reviewed and updated if necessary ▸ Consider the workload of the experts according to the active projects and their availability (e.g. workload from their jobs) ▸ Additional dates (meetings, circulation of working drafts and meeting documents, collection and circulation of comments, etc.) are agreed with the Project Leader (consultation with the WG if necessary) ▸ Key responsibilities within the WG/project team are agreed to ensure a straightforward work approach ▸ Review the project plan at WG meetings ▸ Changes to the plan or to the project may need approval from the committee depending on the nature of the change (See **ISO/IEC Directives Part 1**)
When	▸ During the 1st WG meeting (it can be done by correspondence when the Committee Manager cannot join the 1st WG meeting) ▸ The project plan is a living document = updating the project plan is a continuous process throughout all development stages
Result	Detailed project plan registered in ISO Projects https://sd.iso.org/projects/ (see **Annex A**)
Reference	▸ **ISO/IEC Directives Part 1**, 2.1.6, 2.3.4 ▸ **ISO 21500:2012**, 4.3.3

Table 4 – Developing a detailed project plan.



4. Development of the project

The aim is to perform the project management activities (update of the development plan, proactive controlling, etc.) at all stages of the project's development (WD and CD if any, DIS etc.) to support the progress of the project through the various ISO development stages and in accordance with the project plan. During the development stages, the resolutions agreeing on actions related to the project shall include target dates.

See here for additional resources on the development of projects: **https://www.iso.org/stages-and-resources-for-standards-development.html** and **Annex E** which provides good practices for improving effectiveness of working group meetings.

See **ISO/IEC Directives Part 1**, 2.4 to 2.7; see **ISO 21500:2012**, 4.3.4

5. Controlling

The aim is to ensure that the development of a project is continuously controlled according to the agreed project plan. Controlling may trigger preventive or corrective actions on a project (decision to skip a step because consensus is reached ahead of time, change a meeting date, etc.). Controlling is also to be considered from the portfolio perspective, see Clause 7. The frequency of the controlling has a strong impact on the quality of project management. The more frequent controlling is, the less likely it is that a project will drift too far from the agreed plan, as intervening actions will have been taken.



Who	▸ Committee Manager (responsible) and ▸ Project leader, Convenor and WG Secretary, if any, as contributors (see **Table 1**)
What	Continuously measure and control project progress against the project plan to ensure project development within the agreed time frame
How	▸ The project plan serves as basis for the controlling process ▸ Continuous exchange between Committee Manager and Project Leader ▸ Project plan and target dates shall be kept under continuous review (e. g. at meetings or in the Secretariat report) and shall be updated[3] accordingly in **ISO Projects application** ▸ Take or initiate preventive and/or corrective actions after consultation with the Project Leader and the committee members if necessary (e. g. skip stages, change target dates – see **Annex B** and **Annex C.1**) ▸ Keep the overall workload of the committee in mind = frequently review the committee portfolio (see clause 7)
When	During the entire development time and frequently for the portfolio overview
Result	A high quality, relevant document is developed according to the project plan, plan updates (or change request to committee i.e. deliverable, scope, etc.)
Reference	▸ **ISO/IEC Directives Part 1**, 2.1.6.2, 2.1.7, 2.1.9 ▸ **ISO 21500:2012**, 4.3.3, 4.3.6

Table 5 – Controlling.

3) Target dates for the intermediate steps are updated by the Committee Manager in **ISO Projects** (see **Guidelines** to enter target dates in ISO Projects).

6. Lessons learned

This process, at the closure and potentially during the development, of the project, aims to help the Committee Manager, Convenors and Project Leaders to learn from experience.

The Committee Manager could trigger the identification of what has been successful in the project and what could have been improved. This would preferably be done with the Convenor and Project Leader, sharing the outcomes with the committee as good practice and finding solutions to avoid repeating issues when possible. Lessons learned are one of the major inputs for future projects especially for the planning stage.

See **Annex F** for example of lessons learned questions and findings; see **ISO 21500:2012**, 4.3.7 and 4.3.8.



7. Portfolio management

A project portfolio is a collection of projects and programs that are grouped and reviewed together to facilitate the effective management of that work. A typical portfolio is the full list of work items being developed by the committee.

Project portfolio management is the centralized management of this collection of projects, which includes prioritizing and controlling projects and other key aspects influencing the portfolio.

Portfolio management is necessary to assess the availability of resources to perform the work (Convenor, experts, WG, translation etc.): are the resources available to start the work as soon as the decision is taken (1st WG meeting within 12 weeks, 1st draft to be available in a near future, etc.)?

Who	Committee Manager (see **Table 1**)
What	Continuously and frequently monitor, measure and control portfolio progress and status to support realistic planning (e. g. feasibility to start new projects) and to ensure project development within the agreed time frame
How	▸ All active projects are reviewed in a single portfolio for a global overview – **https://sd.iso.org/projects** ▸ Continuous exchange between Committee Manager, Project Leader and the committee ▸ Portfolio shall be kept under continuous review to improve reactivity with early deviation identification ▸ Control the availability of resources, including Project Leader and experts, and take preventive and/or corrective actions after consultation with the Chair and Convenor in the framework of the Strategic Business Plan and approval by the committee if necessary (e. g. postpone the start of a project until the Project Leader is available, call for experts, new working group, new priorities) ▸ Triggers more detailed analysis and controlling of a project if necessary, proposing actions considering the interrelated constraints (see **Annex B** and **Annex C.1**)
When	During the proposal phase for any new project or revision, and at least once a month or more frequently depending on the situation of the portfolio (more frequently if necessary to avoid bottleneck issues)
Result	Realistic planning such as starting a project when resources are available (priorities) and better spreading the workload over time, reducing peak constraints; improved reactivity with the early identification of drifts in the plan or potential improvements; more efficient meetings when based on a conjunction of different projects that would require a meeting to progress.
Reference	▸ **ISO/IEC Directives Part 1**, 2.1.2, 2.1.5 ▸ **ISO 21500:2012**, 3.5.3.2

Table 6 – Portfolio management.

Portfolio management is helpful to provide an overview of all projects in the work programme:

- identifying potential deviations as early as possible in the development of projects
- identifying when a meeting would be the most efficient in terms of outcomes of technical discussions on projects (and coordinating activities when possible to reinforce the agenda of the planned meeting).

Annex A – Project Plan from ISO Projects application and communication example

Timeline and stage list including Committee Manager planned target dates on CD ballot and DIS submission :

ISO/DIS 22507 ed. 1 - id. 73358 ISO/TC 123/SC 7

Title

en Plain bearings -- Fluid film bearing materials for vehicular turbocharger

fr Titre manque

Timeline

REGISTRATION DATE	TIMEFRAME	TIME SINCE REGISTRATION	IN STAGE
2017-05-30	36 months	8 months	40.00 for 27 days



Stage

Stage	Version	Description	Target date	Limit date	Started	Status
10.00	1	Proposal for new project registered			2017-02-17	CLOSED
10.20	1	New project ballot initiated	2017-02-17		2017-02-17	CLOSED
10.60	1	Close of voting	2017-05-12		2017-05-14	CLOSED
10.99	1	New project approved			2017-05-30	CLOSED
30.00	1	Committee draft (CD) registered	2017-10-30		2017-10-23	CLOSED
30.20	1	CD study/ballot initiated			2017-10-24	CLOSED
30.60	1	Close of voting/comment period			2017-12-21	CLOSED
30.99	1	CD approved for registration as DIS			2018-01-17	CLOSED
40.00	**1**	**DIS registered**	**2018-05-17**	**2019-05-30**	**2018-02-01**	**CURRENT**
40.20		DIS ballot initiated	2018-04-05			WAIT
40.60		Close of voting	2018-06-28			WAIT
50.00		Final text received or FDIS registered for formal approval	2018-10-28			WAIT
60.60		International Standard published	2019-05-15	2020-05-30		WAIT

Show less



Example of project plan for developing a standard within 18 months :

2017-06-15 (project starting)
- NP approved or Resolution to revise ISO XXXX – Track 18 months (written in the resolution)

2017-06-15 to 2017-09-10
- WG prepares the draft project

2017-09-15 to 2017-11-15
- CD ballot

2017-11-15 to 2017-02-10
- WG prepares the DIS document

2018-02-15 (limit date)
- DIS submitted to ISO/CS

2018-07-15
- End of DIS

2018-07-15 to 2018-10-10
- Preparation of the document for publication

2018-10-15 (limit date)
- Submission to ISO/CS for publication

2018-12-15
- PUBLISHED !

NOTE : As usual WD and CD can be skipped (it can be stated in the resolution to revise)

Simplified dates and keep in mind some days may be needed for preparation of document circulation or administrative work



Annex B – Interrelated constraints

Interrelated constraints – one influences the other and the balance between them can be part of a solution to publish a document:

1. Scope or Deliverable

Changing the kind of deliverable or changing the scope

- Going from an International Standard to a TS or PAS enables a document to be published as an interim solution, getting market feedback and and allowing more time for the users to be ready to apply the document as IS. This may facilitate the acceptance of the current content of the document and could lead to further acceptance of the document as IS at later stage. (See **ISO/IEC Directives Part 1**, 2.1.6.2)
- Expanding the scope (the breadth and depth of coverage of the topic, inclusion of conformity tests, etc.) could make it more difficult to achieve consensus, with a potential impact both on the time taken for the development of a mature solution (increased duration) or on the budget (more discussion rounds, more meetings to reach agreement or follow-up of comments, etc.)

2. Budget

The number of rounds of discussions, comments, ballots and meetings needed, plus the availability of the Project Leader and the experts are also part of the budget.

- Reducing the budget would potentially impact the scope/deliverable (e.g. we need to develop this but we only have the option of two WG meetings within 12 months) or would take more time for development (e.g. we can support only three WG meetings a year and we anticipate six WG meetings so the DIS cannot be ready in 24 months)
- Increasing the budget could be based on intensity (e.g. there is a confirmed urgent need from the market, we will have four WG meetings during the year to have the DIS ready by x date)

3. Schedule

- If you reduce the scope or change the deliverable from IS to PAS, the document could be delivered in a shorter time (for instance a PAS needs one committee vote only to agree on publication).
- If you delay availability to the market, you may have a document with enhanced content but with an impact on the budget and at the cost of a document that may no longer be published in phase with the market needs.





Annex C – Risks

1. Typical risks encountered in ISO activities having impact on the development time

Project is forgotten with a dead period of no development.

What can be done ?

- Better controlling, better support and coaching provided to the Convenor (who often doesn't know much about ISO processes and can lose time wondering where to start or where to find the information) and above all, the Convenor usually has other employment responsibilities, with direct priorities that, in the context of low controlling from the Committee Manager and Chair, will make the ISO project the lowest priority amongst his/her tasks.
- Restart the project if the loss of time jeopardizes the quality of the document and its development (lack of technical discussion time, hurrying in the resolution of comments, etc.)

Difficulty reaching consensus, leading to more CD ballots, more meetings, etc.

What can be done ?

- Could be identified at the beginning (main stakeholders' positions, major regional regulatory divergence, new techniques that not all market players can implement yet, etc.) and anticipated.
- If you identify such risks – major regional regulatory divergences, new techniques that not all market players can implement yet (possible conflict that standards are considered to specify the state of the art), make sure they don't jeopardize the proposal's acceptance

Fundamental change to the project such as expanded scope or new test method to be added, new DIS, more meetings to get approval for the new direction.

What can be done ?

- This can be proposed for a next edition or an amendment to let the main content of the document be published, thereby meeting the expectations of the users.
- Restarting the project is also a valid option if the change is considered so fundamental that the project may not be what was approved at the beginning.

Innovative technical development : more time could be needed for validation of the solution by the stakeholders, to get used to the new technique.

What can be done ?

- Assess if the content has real benefits for the document and justifies delaying the delivery of the document to the users. Similarly, an amendment specific to the new technique can start in parallel.

Lack of reply and commitment from the Convenor, or health issues.

What can be done ?

- Support the Convenor if temporary unavailable for any reasons ; appoint a new Convenor in cases of lack of commitment.

Lack of coordination (a committee unwilling to inform potentially impacted committees and facing disapproval or many comments at DIS stage when the draft is circulated to all ISO members).

What can be done ?

- Reinforcing early communication during the preparation of the proposal, searching for engagement of other committees (including ISO/IEC) when it is identified this may impact others

2. Risk checklist example to support planning activities :

- Have you considered the availability of resources (see **ISO/IEC Directives Part 1**, 2.2.3) ? (e.g. is the expected Project Leader able to start the project immediately after approval, is the expected WG able to handle this new project are all experts available or are some of them missing and critical before the project starts ?)
- Have you planned for all possible steps ? (Meeting dates if any, preparation of the draft after comments resolution, collecting and circulation of the comments and voting results, preparing the submission, preparing the ballot, etc.)
- Are the planned steps consistent with the requirement of the Directives ?
- Max 12 weeks to have the 1st WG meeting after creation (**ISO/IEC Directives Part 1**, 1.12.1),
  - Not less than 6 weeks for document circulation before the meetings (**ISO/IEC Directives Part 1**, Annex SK),
  - DIS stage:2 weeks ISO/CS preparation + 8 weeks translation by ISO members and 12 weeks ballot,
  - Final document for FDIS or publication required not later than 16 weeks after the DIS ended (**ISO/IEC Directives Part 1**, 2.6.6) (12 weeks for SDT18),
- Are you ready to support the Project Leader, if needed, in controlling the project, to keep the momentum and to provide the Project Leader all the necessary information that may be needed (ISO processes, reminders etc.) ?
- Have you communicated the planned project to a larger group than your committee (other impacted ISO or IEC committees, regional SDOs, etc.) to gather more stakeholders to join the project ?
- Have you identified that diverging opinion or mistrust between stakeholders in the group could put the project at risk?
- Have you identified potential difficulties in reaching consensus ? Are they manageable ? Have you assessed with the support of the Chair, the proposer or Project Leader the complexity of the project to help you to define the duration of development ? (E.g. STD18 for simple projects such as easy adoption of an existing document, small revisions on anticipated and agreed modifications, or by contrast SDT36, or even longer, for complex projects : joint groups and different stakeholders, potential reference to legislation, regional specificities etc.)

For information : risk matrix of the projects that have taken the longest time for development (> than 58 months) after analysis for the TMB, in 2016.

Analysis of reasons for delays (projects taking over 58 months in development) Annex 1 to Agenda item 3.3, TMB February 2017

Bad project management practice

- Project timeframe inadequately defined › re-adjustments
- Unavailability to attend meetings / date clash for stakeholders or experts
- Lack of monitoring resulting in late submission of inputs / feedback from experts
- Lack of needs assessment
- Bad coordination of translation
- Additional deliverables not foreseen

Communication, Coordination issues

- Insufficient communication between TCs
- Controversy, mistrust, diverging opinions between stakeholders
- Coordination issues with CEN Lead
- Ineffective " mirror group " system to scrutinize drafts early in some countries

Resource issues

- Lack of available experts (stakeholders are busy with other occupations)
- Large turnover of experts
- Long transition periods for replacement of leadership
- Absence of project leader, secretary, chair (following illness, sudden departure, retirement, death)
- CEN consultants not available in 2014-2015

Technical issues

- Inaccuracy in databases › late submission of base texts
- Unexpected tests needed (e.g. round robin test, lab testing, inter-laboratory studies)
- Technical issues at CIB ballots
- Complexity of topic
- Substantial amount of comments to examine (DIS stage)
- Major change in scope of project

Leadership issues

- Difficulty reaching consensus
- Difficulty reaching out to PL

Editing issues

- Mathematical inputs requiring complex editing alignment with ISO Directives Part 2 etc.
- Lack of preparation of illustrations, resulting in delays of publication
- Poor quality of input, e.g. missing figures
- Errors caused by eXtyles process
- HTML format processing issues at ISO/CS level

Political/legal issues

- Embargos (e.g. TC 67)
- Wariness of stakeholders towards the impact of agreements (e.g. VA agreement)
- Rare cases of experts trying to "kill" or slow down a specific work item
- Visa, travel and financial restrictions
- Copyright issues

Annex D – Example resolution

Example of resolution to revise a document:

Resolution X/2017 – 2017-06-15

ISO/TC 43 decides to revise ISO 6926 based on the 1st draft available as doc.NXXX, using the 18 months standard development track, the scope remains unchanged. The Convenor, Dr. XXXX, will convene a 1st WG meeting by 2017-09-10. The Committee Manager will then organize the CD stage by 2017-09-15 (8 weeks) enabling the Convenor to finalize the project for the DIS stage by 2018-02-10 (8 months max after the project approval).



Annex E – Improving effectiveness of working group meetings

Major progress on draft standards is often made during WG meetings. It is therefore necessary to be efficient during those meetings. Here are several proposals aiming to improve effectiveness of WG meetings. A great part of the success of meetings lies in what is done between two meetings to prepare, progress and follow-up:

Before the meeting:

- Prepare an agenda that precisely indicates the documents to be discussed and the expected outcome.
- Begin the meeting by reporting on discussions/recommendations from the previous meeting and clearly indicate that those items will not be re-opened for discussion.
- Resume and analyze the list of actions decided during the previous meeting.
- If the aim of the meeting is to deal with comments formerly sent on a draft standard, the Project Leader/Convenor/WG secretary shall have solved all editorial comments prior to the meeting. The meeting must focus on the main technical items.

During the meeting:

- Do not re-open the discussion on a decision already taken by the WG at working draft stage but wait for comments from that NSB at the next stage to re-open the discussion.
- Do not allow never-ending debates.
- During the meeting, write a precise action list that identifies the responsible person and a target date.
- Define the next steps on each draft standard for the next two meetings.
- Do not begin a draft standard without having solved the main controversial items. Otherwise discussions will be re-opened at every meeting.
- Before leaving the meeting, have a clear view of the conclusions of the meeting.

Between two meetings:

- Update the action plan (i.e. target dates on projects, etc.).
- Follow-up agreed actions and send reminders to the responsible people who need to provide contributions.
- Update the draft standard based on the consensus agreed at the last meeting.
- If the draft standard must be submitted to the WG for a last proofreading before balloting, experts must not use this opportunity to re-open debates: the aim of this proofreading shall be clearly stated.
- Encourage web meetings to deal with specific items between two meetings of the working group.
- Ensure visibility on the planning of forthcoming meetings.

Change of Convenor/Secretary:

- Ensure continuity of work (notably via regular uploading of WG documents on Livelink).

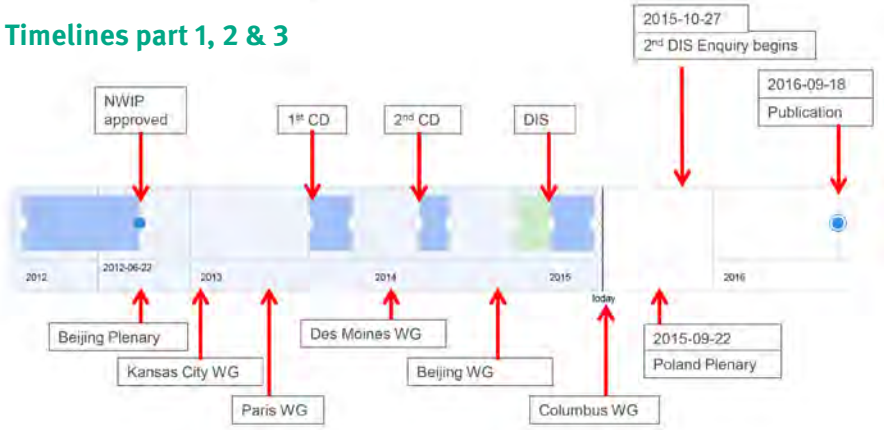


Annex F – Example of lessons learned

Practices at the closure of the project (publication); lessons learned can be gathered during the entire life cycle of the project.

The idea is simply to learn from experience, implement best practices, improve when possible, and avoid repeating situations when they negatively impact the success of the project.

Timelines part 1, 2 & 3



What went well?

For instance, efficient WG meeting schedule:

- Soon after Beijing WG meeting, the DIS was finalized and submitted to ISO/CS
- Soon after the DIS has ended, a new WG meeting in Columbus
- How can we reinforce the practice of coordinating meetings with the progress of the project? Share those examples to the other WG Convenors, keep in mind the duration of the different steps, including the 6 week document circulation ahead of meetings, to enable national preparation, etc.

What can be improved?

For instance, the starting date of the project in accordance with the availability of the resources (experts and Project Leaders)

- 1st WG meeting 6 months after the NP is approved when the requirement is 12 weeks maximum
- One solution is to anticipate and have an agreement on the real start of the project – when the work really begins (often the 1st WG meeting) and have the project approved around that date.

About ISO

ISO (International Organization for Standardization) is an independent, non-governmental organization with a membership of 162* national standards bodies.

Through its members, ISO brings together experts to share knowledge and develop voluntary, consensus-based, market-relevant International Standards that support innovation and provide solutions to global challenges.

ISO has published more than 22 000* International Standards and related documents, covering almost every industry, from technology to food safety, to agriculture and healthcare.

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policy



Project Management Methodology

Roles, responsibilities and capability requirements



1. General

This document describes the responsibilities and capability requirements for the different roles identified within the Project Management Methodology (PMM) concept (see **Table 1**). The role of the Proposer is not covered since it is not an official role within the ISO system.

		Stage								
		NP		Drafting, DIS & preparation of final text			Pub.	Continuous process		
	Task	Proposal	Planning: Draft project plan	Planning: Detailed project plan	Developing the project	Controlling	Lessons learned	Portfolio management	Project management	Committee management
Role	Proposer	R	R							
	Committee Manager	C	C	R		R	R	R	R	R
	Project Leader/ Convenor; Chair	C	C	C	R	C	C	C	C	C
	Committee and/or WG[a)]				C		C	C	C	C
	ISO TPM	The ISO Technical Programme Manager (TPM) provides support and guidance at all stages and for each role and ensures the ISO/IEC Directives are followed								

R = Responsible | C = Cooperation

Table 1 – Responsibilities matrix.

NOTE: **Cooperation** does not imply a secondary role nor passivity. For instance, the Project Leader has a key role to play in drafting a project plan due to her/his availability to deliver the draft. **Responsible** means triggering the activities, making sure the tasks are performed, organizing the inputs of the different roles.

a) depending on the development step and if the project is allocated to a WG or not.

2. Roles, responsibilities and capability requirements within the ISO Project Management Methodology

2.1. General

See **Table 2** for the PMM roles described in clause 2 and their allocation within the ISO system.

Committee level		
Committee Manager (**2.2**)	Chair (**2.3**)	
WG/Project level		
WG-Secretary (optional role) (**2.4**)	Convenor (**2.5**)	Project Leader (**2.6**)

Table 2 : PMM roles within the ISO system.





The capability matrix in **Table 3** shows the required fulfilment level for the core capabilities for each role. Clauses **2.2** to **2.6** give a more detailed description of the capability requirements to support the core capabilities shown in **Table 3**.

	Capability	Project management	Committee management	Standardization competence[a)]	Technical competence[b)]	Leadership competence
Role	Committee Manager	+++	+++	+++	0	++
	WG-Secretary[c)]	++	++	++	0	0
	Chair	+	+	+	++	+++
	Convenor	++	+	0	++	+++
	Project Leader	++	0	0	+++	++

capability increases

0 + ++ +++

0 no specific capability
+ basic capability
++ enhanced capability
+++ substantial capability

Table 3 – Core capability matrix.

a) ability to apply standardization knowledge and skills to achieve intended results

b) ability to apply knowledge and skills related the sector covered to achieve intended results

c) if not available, the Committee Manager shall insure these capabilities are available at the WG or project level (cf. introductory part of **2.4**).

2.2. Committee Manager

Responsibilities:

- manage the project portfolio of the committee
- monitor workload of the assigned committee, if needed in cooperation with the Chair
- propose priorities for work items to the committee
- check content of NP form (clarity, comprehension, completeness, etc.) and if needed, discuss with the Proposer before launching the NP ballot
- draft the project plan (in cooperation with Proposer, Chair, Project Leader/Convenor)
- create basic conditions and structures for effective work
  - propose, in cooperation with the Chair, to assign work items to the relevant Working Group (possibly to be created)
  - ensure effective decision-making (when possible, take decisions by correspondence between meetings and ensure timely distribution of documents before a committee meeting – avoid delaying the project by waiting for a meeting to take decisions)
- advise experts on application of ISO/IEC Directives and official procedures
- proactively and frequently monitor, measure and control project progress against the project plan (for whole committee portfolio)
- take or propose preventive and corrective actions on portfolio and on projects to meet the agreed target dates and ensure efficient development of projects, in accordance with the stakeholders' needs
- prepare committee meetings and ensure timely implementation of the meeting outcomes
- prepare and manage committee documents
- support the Chair (and as appropriate the Convenor and/or the Project Leader)

Capability requirements:

Project management competence:

- analytical competence
- communication skills
- problem-solving skills
- self-organization skills
- structured working method
- networked/systematic thinking

Committee management competence:

- precise phrasing of discussions and decisions
- technical literacy (ability to follow, understand and learn from technical discussions)
- be proactive
- open-mindedness
- ability to motivate others

Standardization competence:

- substantial knowledge of ISO/IEC Directives and processes
- IT savvy (e. g. MS Office, ISO IT-Tools)

Leadership competence:

- impartiality
- cultural intelligence (e.g. knowing how to address experts from different cultures)



2.3. Chair

Responsibilities:

- identify priorities, market and stakeholders' expectations and assess the committee's available resources for planning coordination
- assess the potential risks related to a project, helping identify potential obstacles to its development (consensus, market divergences etc.)
- support the WG activities to reach consensus – e. g. the Chair could join a WG meeting to recall objectives, vision, etc. and help the WG to move forward
- assist with drafting the project plan in cooperation with the Committee Manager

Capability requirements

Leadership competence:

- feedback skills
- ability to motivate others
- ability to collaborate and negotiate
- adaptability
- impartiality
- communication skills
- cultural intelligence (e.g. knowing how to address experts from different cultures)

Technical competence:

- know the subject, the sector and market needs

Project management competence:

- structured working method
- networked/systematic thinking

Standardization competence:

- basic knowledge of standardization processes and rules

Committee management competence:

- open-mindedness
- listening ability/ mediate between opinions



2.4. WG Secretary (optional role)

The role of the WG Secretary is not mandatory and it is up to the National Body confirming the Convenor to propose a WG Secretary who would support the Convenor in the below activities. The WG Secretary may be provided by another National Body.

A WG Secretary is recommended to support the Convenor/Project Leader(s).

When there is no WG Secretary, the Committee Manager shall ensure responsibilities are allocated to the Convenor and Project Leaders.

In most of the situations where there is no WG Secretary, the Committee Manager will support and guide the Convenor and Project Leaders on the ISO/IEC Directives and on project management.

In addition to the description in **2.5**, the Convenor will take responsibility for document management and meeting preparation, using ISO-IT applications.

2.4. WG Secretary (optional role)

Responsibilities

- ensure that the draft respects the ISO/IEC drafting rules
- create the basic conditions for effective work (support to Convenor and experts, proactivity and timeliness of actions, with well-prepared WG meetings, i.e. sorting comments to make sure the most critical will be addressed first, etc.)
- advise experts on application of ISO/IEC Directives and official procedures
- prepare WG meetings and their timely follow-up
- prepare documents and manage their distribution to the WG members
- keep track of the project plan : proactively and frequently monitor, measure and control project progress against the project plan to ensure project development within the agreed time frame
- frequent communication with Committee Manager
- assist the Committee Manager in drafting the project plan
- support the Convenor

Capability requirements

Project management competence :

- analytical competence
- communication skills
- problem-solving skills
- self-organization skills
- structured working method
- networked/systematic thinking

WG management competence :

- precise phrasing of discussions and decisions
- be proactive
- open-mindedness
- ability to motivate others
- impartiality

Standardization competence :

- enhanced knowledge of ISO/IEC Directives and processes
- IT savvy (e. g. MS Office, ISO IT Tools)

2.5. Convenor

When there is no WG Secretary (see **2.4**), the Convenor undertakes the responsibilities of the WG Secretary, or ensures that they are allocated to the Project Leader and the Committee Manager, and that those people have the required capabilities.

Responsibilities

- accountable for the development of the projects
- leads meetings effectively with a view to reaching consensus on the document within the WG
- ensures the projects developed under his/her WG are meeting the agreed plan
- proactively propose solutions and actions to the PL and WG, including WG meetings (physical or WebEx) or consultation by correspondence to progress efficiently on the drafts
- update the Committee Manager on the status of projects
- report to Committee Manager during committee meetings
- draft the project plan in cooperation with the Committee Manager



2.5. Convenor

Capability requirements

Project management competence:

- structured working method

Technical competence:

- knowledge of technical background

Leadership competence:

- ability to motivate experts to successfully complete the project according to the planned timeframe
- impartiality
- ability to collaborate and negotiate
- adaptability

WG management competence:

- open-mindedness
- communication including listening abilities
- ability to mediate between different opinions



2.6. Project Leader

(could be the same person as the Convenor)

When there is no WG-Secretary (see **2.4**), the Project Leader undertakes the responsibilities of the WG Secretary, or ensures that they are allocated to the Convenor and the Committee Manager, and that those people have the required capabilities.

Responsibilities

- leadership of the project team
- lead and drive project work
- ensure that the draft respects the ISO/IEC drafting rules
- draft the project plan in cooperation with the Committee Manager
- keep track of the project plan: proactively and frequently monitor, measure and control project progress against the project plan to ensure project development within the agreed time frame
- support the Convenor
- update WG Convenor on project status
- report to WG meetings

Capability requirements

Project management competence:

- structured working method
- ideally have experience in project work

Technical competence:

- profound knowledge of technical background
- phrasing of technical documents

Leadership competence:

- ideally have experience in leading a project team
- ability to collaborate and negotiate
- adaptability
- open-mindedness
- communication skills
- problem-solving skills

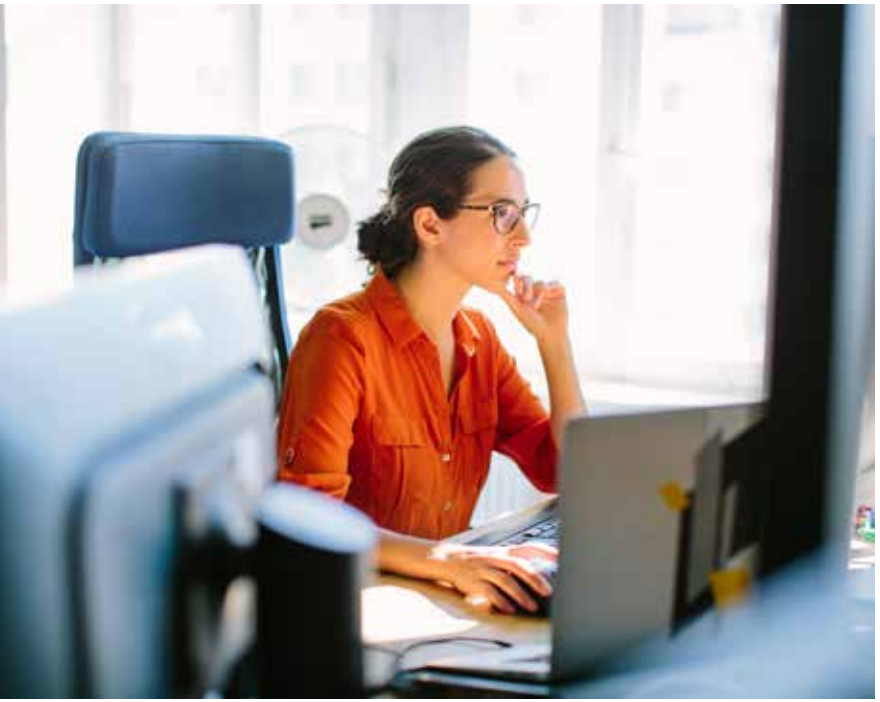


2.7. ISO Technical Programme Manager (ISO TPM)

The TPM is not part of the competence matrix since he/she is not appointed by the members but by ISO/CS. Nevertheless, since the TPM plays an important role in project management, his/her responsibilities are part of this document.

Responsibilities

- assist and advise the Committee Manager, Chair, Convenor and Project Leader(s) (e. g. understanding and applying the ISO/IEC Directives and official procedures)
- track project portfolios of several committees/subject areas
- remind the Committee Manager of deadlines and milestones
- inform the Committee Manager, Chair, Convenor and Project Leader(s) of changes to processes and to the ISO/IEC Directives
- facilitate communication between the committee and ISO/CS





About ISO

ISO (International Organization for Standardization) is an independent, non-governmental organization with a membership of 162* national standards bodies.

Through its members, ISO brings together experts to share knowledge and develop voluntary, consensus-based, market-relevant International Standards that support innovation and provide solutions to global challenges.

ISO has published more than 22 000* International Standards and related documents, covering almost every industry, from technology to food safety, to agriculture and healthcare.

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Til prosjektledere i Standard Norge og standardiseringskomiteer

Støttedokument i Standard Norges kvalitetssystemet. Ivaretakelse av miljøaspekter, prinsipper om universell utforming og forbrukerhensyn ved utarbeidelse av Norsk Standard.

Bakgrunn

I januar 2010 ble det innført krav om at miljøaspekter, prinsipper om universell utforming (UU) og forbrukerhensyn skal ivaretas ved utarbeidelse av Norsk Standard. Denne sjekklisten er et verktøy for å sikre at disse tre aspektene blir vurdert og tatt høyde for underveis i arbeidet. Den er tenkt brukt av komiteer og prosjektledere i Standard Norge.

Sjekklisten inngår i Standard Norges kvalitetssystem og skal benyttes i alle nasjonale standardiseringsprosjekt. Prosjektleder er ansvarlig for at sjekklisten gjennomgås.

Sjekklisten er primært laget for utarbeidelse av Norsk Standard, men kan også brukes for internasjonale standarder som Standard Norge har sekretariat for, fordi tilsvarende krav gjelder for CEN og ISO.

Innhold i sjekklisten

Sjekklisten er bygd opp med en huskeliste for hele standardiseringsprosessen samt egne sjekklister for å ivareta aspekter knyttet til miljø, universell utforming og forbrukerhensyn.

1 Huskeliste fra mandat til ferdig standard, side 2

2 Sjekkliste for miljø, side 3

3 Sjekkliste for universell utforming, side 6

4 Sjekkliste for forbrukerhensyn, side 9

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1 Huskeliste fra mandat til ferdig standard

Stadium	Aktivitet	Ansvar
Oppstart av nye prosjekter. Utarbeidelse av mandat	Vurder prosjektet med hensyn på miljø, UU og forbruker og innarbeid relevante krav i mandatet, se vedlagte sjekklister	Prosjektleder Markedsansvarlig
	Diskuter prosjektet og mandatet med relevant fagperson i Standard Norge.	Prosjektleder
Oppnevning av komité	Inviter relevante interessenter[1)] til komitédeltakelse	Prosjektleder
	Sjekk om det er CEN-/ISO-guider[2)] som er relevante å bruke	Prosjektleder
Samordningsmøte(r) i Standard Norge	Vurder om det er relevante standarder innenfor miljø, UU og forbruker som bør være normative eller som må tas hensyn til.	Deltakere på samordningsmøtet
	Vurder om relevante krav til miljø, UU og forbruker er i henhold til lover/forskrifter og tilgrensende standarder	Deltakere på samordningsmøtet
Utarbeidelse av standard	Gjennomgå og bruk vedlagte sjekklister for miljø, UU og forbruker	Prosjektleder Komité
	Sjekk om det er CEN-/ISO-guider[2)] som er relevante å bruke	Prosjektleder
	Inviter interesseorganisasjoner, NGO eller forbrukerorganisasjoner til diskusjon av konkrete saker dersom de ikke allerede er representert i komiteen	Prosjektleder
	Vurder om relevante krav til miljø, UU og forbruker er i henhold til lover/forskrifter og tilgrensende standarder	Prosjektleder Komité
Høring	Vurder om relevante høringsinstanser innenfor miljø, UU og forbruker skal varsles om at forslag til standard er på høring.	Prosjektleder
	Varsle relevant fagperson på miljø, UU og forbruker i Standard Norge	Prosjektleder
Formell avstemning[3)]	Varsle relevant fagperson på miljø, UU og forbruker i Standard Norge	Prosjektleder
Fastsetting	Varsle relevante fagmiljøer innenfor miljø, UU og forbruker om at standarden er utgitt.	Prosjektleder
	Varsle relevant fagperson på miljø, UU og forbruker i Standard Norge	Prosjektleder

1) Eksempler kan være Forbrukerrådet, Forbrukerombudet, Norges blindeforbund, Norges handicapforbund og Grønn Hverdag
2) Se oversikt og info om relevante guider på http://www.standard.no/no/Fagomrader/Forbruker/Guider/
3) Dette gjelder kun for internasjonale prosjekter

2 Sjekkliste for miljø

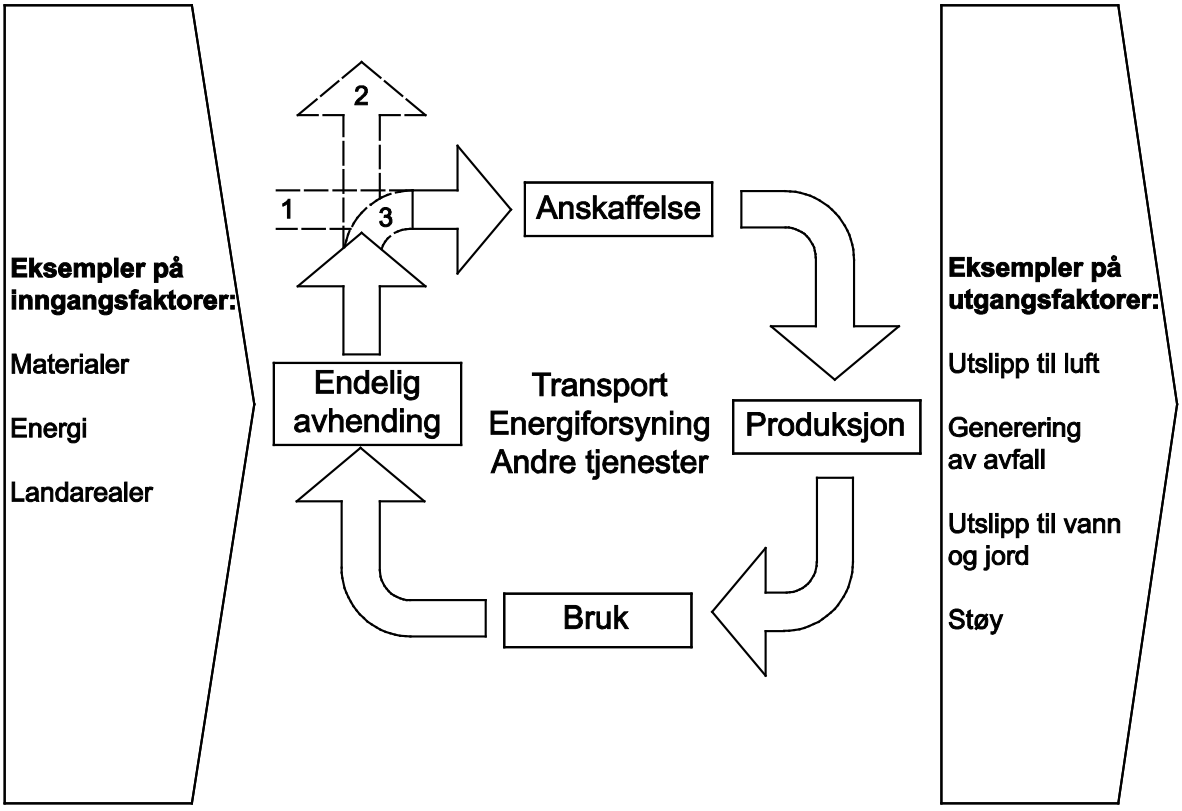
Er miljøpåvirkning relevant for gjeldende standardiseringsprosjekt?

Alle produkter påvirker miljøet på en eller annen måte enten ved produksjon, levering, bruk eller som avtall. Med produkter menes både varer og tjenester. For å identifisere miljøbelastning for et gitt produkt er det viktig å bruke livsløpstankegangen, se figur hentet fra SN-ISO Guide 64 Guide for håndtering av miljøspørsmål i produktstandarder. "Livsløpstankegang" betyr å ta hensyn til alle miljøaspektene ved et produkt på alle stadier i livsløpet. Figuren viser fire hovedstadier i produktets livsløp:

– anskaffelse (av materialer);
– produksjon;
– bruk;
– endelig avhending.

Prosesser som transport, energiforsyning og andre tjenester er plassert i midten av diagrammet, siden de ikke tilhører et bestemt stadium i produktets livsløp. De forekommer vanligvis mellom stadiene. Inngangsfaktorer og utgangsfaktorer kan eventuelt ha relevans for alle disse stadiene og prosessene. Standardene bør sikre at hensyn til miljøpåvirkningen på et enkelt stadium ikke medfører en uønsket endring eller påvirkning av

– den samlede belastningen av miljøpåvirkninger knyttet til et produkt;
– andre aspekter ved det lokale, regionale eller globale miljøet.



Figur 1 – Livsløpstankegang [Hentet fra SN-ISO Guide 64:2008]

1) Vil standarden omfatte en vare eller tjeneste som påvirker miljøet?

Ja		**Nei**	

Hvis ja:
2) Ivaretakelse av miljøhensyn
For å sikre at miljøhensyn blir ivaretatt ved utarbeidelse av norske standarder, skal SN-ISO Guide 64 følges. Denne finnes på norsk. Formålet med veilederen er å

- rette oppmerksomheten mot hvordan krav i standarder kan påvirke miljøet i positiv eller negativ retning
- vise sammenhengen mellom produktstandarder og miljøet
- bidra til å unngå krav i produktstandarder som kan føre til skadelig miljøpåvirkninger
- vise at det å ta miljøhensyn i produktstandarder er en kompleks prosess hvor konkurrerende prioriteringer må balanseres
- anbefale bruken av livsløpsanalyse og anerkjente vitenskapelige metoder ved innarbeiding av miljøhensyn i standarder.

EU-kommisjonen mener at standarder er et viktig virkemiddel for å oppnå miljøvennlige produkter og tjenester. CEN har vedtatt at standardene som utarbeides skal belaste miljøet i minst mulig grad og har pålagt standardiseringskomiteer/arbeidsgrupper et ansvar for

- tidlig i prosessen å identifisere og vurdere miljøaspekter knyttet til standardene
- å vurdere hvordan standardene kan bidra til redusert miljøbelastning
- å inkludere et tillegg i standardene som dokumenterer og beskriver dette

CEN har opprettet en hjelpefunksjon (helpdesk) hvor standardiseringskomiteer og arbeidsgrupper kan få faglig veiledning i arbeidet med miljøvurdering knyttet til en standard. Denne kan også brukes for norske standarder. Hjelpefunksjonen har publisert en e-læringspakke om "miljøhensyn i standardisering" som er tilgjengelig på hjemmesiden til CEN, se www.cen.eu/sh/ehd

I SN-ISO Guide 64 finnes en sjekkliste som kan rettlede komiteen, se tabellen på neste side.

Tabell 1 – Miljøsjekkliste [Hentet fra SN-ISO Guide 64:2008]

Dokumentnummer (hvis tilgjengelig):	**Standardens tittel:**	**TC-/SC-/WG-nummer:**
Arbeidsoppgavenummer (hvis tilgjengelig):	**Miljøsjekklistens versjonsnummer:**	**Dato for siste endring av miljøsjekklisten:**

Miljøspørsmål	**Livsløpsstadium**										**Alle stadier**
	Anskaffelse		**Produksjon**		**Bruk**			**Endelig avhending**			
	Råmaterialer og energi	**Halvfabrikata og komponenter**	**Produksjon**	**Emballering**	**Bruk**	**Vedlikehold og reparasjon**	**Bruk av tilleggs-produkter**	**Gjenbruk / material- og energi-gjenvinning**	**Forbrenning uten energi-gjenvinning**	**Endelig avhending**	**Transport**
Inngangsfaktorer											
Materialer											
Vann											
Energi											
Arealer											
Utgangsfaktorer											
Utslipp til luft											
Utslipp til vann											
Utslipp til jord											
Avfall											
Støy, vibrasjon, stråling, varme											
Andre relevante aspekter											
Miljørisiko fra ulykker eller utilsiktet bruk											
Kunde-informasjon											

Kommentarer:

MERKNAD 1 Emballeringsstadiet refererer til den primære emballeringen av det framstilte produktet. Sekundær eller tertiær emballering for transport, som forekommer på ett eller flere stadier i livsløpet, inngår i transportstadiet.

MERKNAD 2 Transport kan behandles som en del av alle stadier (se sjekklisten) eller som et eget understadium. For å ta høyde for bestemte spørsmål knyttet til transport og emballering av produktet kan det legges til nye kolonner og/eller tilføyes kommentarer.

3 Sjekkliste for universell utforming

Sjekklisten gir en kortfattet oversikt over sentrale kontrollpunkter som standardiseringskomiteer skal bruke for å vurdere om prinsippene for universell utforming bør inkluderes i standardene, der det er relevant.

Er universell utforming relevant for gjeldende standardiseringsprosjekt?

Med universell utforming menes utforming eller tilrettelegging av hovedløsningen i de fysiske forholdene slik at virksomhetens alminnelige funksjon kan benyttes av flest mulig.

1) Vil standarden omfatte et produkt eller en tjeneste som skal benyttes av personer med varierende ferdigheter?

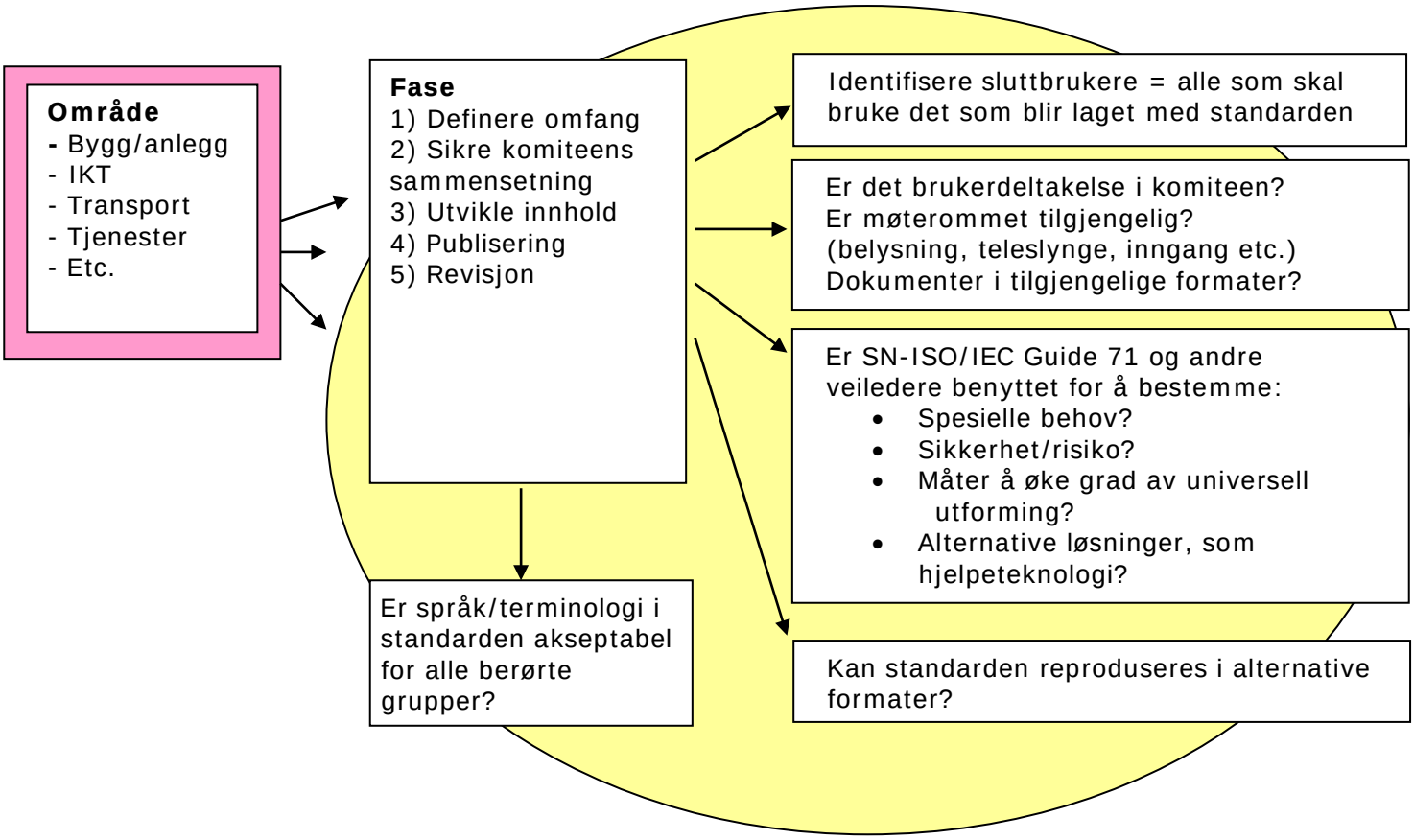
Ja		**Nei**	

Hvis ja, bør følgende 7 hovedprinsipper for universell utforming følges i utarbeidelsen av standarden:

Hovedprinsipp	**Ja**	**Nei**
Like muligheter for bruk - er utformingen brukbar og tilgjengelig for personer med ulike ferdigheter? Kan den benyttes av bevegelseshemmede, blinde og svaksynte, døve og hørselshemmede, personer med kognitiv funksjonsnedsettelse og personer med astma og allergi? Se SN-ISO/IEC Guide 71: http://www.standard.no/no/Sok-og-kjop/produktkatalogen/Produktpresentasjon/?ProductId=146089		
Fleksibel i bruk - tjener utformingen et vidt spekter av individuelle preferanser og ferdigheter? Kan den benyttes av bevegelseshemmede, blinde og svaksynte, døve og hørselshemmede, personer med kognitiv funksjonsnedsettelse og personer med astma og allergi?		
Enkel og intuitiv i bruk - er utformingen lett å forstå uansett brukerens erfaring, kunnskap, språkferdigheter eller konsentrasjonsnivå? Kan den benyttes av bevegelseshemmede, blinde og svaksynte, døve og hørselshemmede, personer med kognitiv funksjonsnedsettelse og personer med astma og allergi?		
Forståelig informasjon - kommuniserer utformingen nødvendig informasjon til brukeren effektivt, uavhengig av omgivelser og brukerens sensoriske ferdigheter? Er informasjonen tilgjengelig for: bevegelseshemmede, blinde og svaksynte, døve og hørselshemmede, personer med kognitiv funksjonsnedsettelse og personer med astma og allergi?		
Toleranse for feil - minimaliserer utformingen av produktet farer og skader som kan gi ugunstige konsekvenser? Kan det benyttes uten fare og skader av bevegelseshemmede, blinde og svaksynte, døve og hørselshemmede, personer med kognitiv funksjonsnedsettelse og personer med astma og allergi?		
Lite fysisk stress - kan utformingen brukes effektivt med minimum av bry og krefter? Kan den benyttes uten fysisk stress av bevegelseshemmede, blinde og svaksynte, døve og hørselshemmede, personer med kognitiv funksjonsnedsettelse og personer med astma og allergi?		

Størrelse og plass for tilgang og bruk - er tilgang, rekkevidde, betjening og bruk av produktet uavhengig av brukerens kroppsstilling eller mobilitet? Gjelder dette for: bevegelseshemmede, blinde og svaksynte, døve og hørselshemmede, personer med kognitiv funksjonsnedsettelse og personer med astma og allergi?		

2) I forhold til standardiseringsprosessen – bør komiteen vurdere følgende:



3) Eksempler på standarder og veiledere for universell utforming
Det kan være nyttig å studere eksisterende standarder og veiledere som har inkorporert universell utforming.

Aktuelle standarder på området universell utforming:

- NS 3041:2007 Skilting - Veiledning for plassering og detaljer
- NS 11001 Del 1 og 2 Byggstandarder for universell utforming av boliger og publikumsbygg
- NS 11005 Universell utforming for uteområder
- NS 11022 Universell utforming – Automater for allmenn bruk – Krav til fysisk utforming og brukerdialog
- NS 11021 Universell utforming – Tilgjengelige elektroniske tekstdokumenter – Krav til utforming, oppmerking og filformater
- NS 1103 Universell utforming - Likeverdig tilgang til tjenester og krav til personlig tjenesteutøvelse
- prNS 11036 Universell utforming – Likeverdig tilgang til fritidsrelaterte tjenester og reiselivsopplevelser
- NS 11040 Universell utforming – Brukermedvirkning og IKT

- NS-EN ISO 9999:2016 Hjelpemidler for personer med nedsatt funksjonsevne. Klassifisering og terminologi (ISO 9999:2007)
- WCAG 2.0 Retningslinjer for tilgjengelig webinnhold
- NS-ISO/IEC 24751-2:2008 Informasjonsteknologi – individuell tilpasning og tilgjengelighet innen e-læring, utdanning og opplæring. Oversikt over tekniske standarder etc. som er nødvendige for tilgjengelig eLæring.

Aktuelle veiledere (guider) for universell utforming:

- SN-ISO/IEC Guide 71 Retningslinjer for å ta hensyn til eldres og funksjonshemmedes behov ved utarbeidelse av standarder.
  Guiden omfatter detaljerte tabeller med faktorer som skal vurderes for å sikre at standarder tilrettelegger for universell utforming, på områder som informasjon, merking, instruksjoner og advarsler; emballasje; materialer; installasjon; brukergrensesnitt; vedlikehold og bygde miljøer (bygninger). Guide 71 gir også en god oversikt over faktorer som skal vurderes og utdyper disse, som alternativt format; plassering og utforming av informasjon, belysningsnivåer og atkomstveier m.v.
- ISO/IEC Guide 37 Instructions for use of products by consumers
- ISO/IEC Guide 41 Packaging – Recommendations for addressing consumer needs
- ISO/TR 22411 Ergonomics data and guidelines for the application of ISO/IEC Guide 71 to products and services to address the needs of older persons and persons with disabilities. Rapporten utdyper ISO/IEC Guide 71 med ergonomiske data.

For mer informasjon, se http://www.standard.no/no/Fagomrader/Universell--utforming/

4 Sjekkliste for forbrukerhensyn

Forbrukerhensyn skal ivaretas. Med forbrukerne menes i denne sammenheng en gruppe eller enkeltindivider som vil kunne bli påvirket av en standard i form av krav til et forbrukerprodukt, en tjeneste, tilgjengelighet, sikkerhet etc. NS-ISO 26000 *Veiledning om samfunnsansvar* definerer forbruker som

- individuelt medlem av allmennheten som kjøper eller bruker eiendom, produkter eller tjenester for private formål

Private formål er det som avgjør om det er forbruker eller bruker (eks. arbeidstaker). Denne definisjonen er adoptert av ISOs forbrukerpolitiske komité som den foretrukne definisjonen av forbruker og som bør brukes i standarder.

1) Standard Norges fagråd for forbrukersaker har fastsatt disse områdene som viktige for forbrukerbeskyttelse ut fra et norsk ståsted. Omfatter standarden ett av disse?

- Tjenester og handel (kvalitet og omfang av tjenester, kompetansekrav for tilbydere, klagebehandling, tvisteløsning, tilbaketrekking av produkter, e-handel etc.)
- Universell utforming (tilgjengelighet for alle, hjelpemidler, ergonomi)
- Miljø og samfunnsansvar (deklarasjoner, skadelige stoffer, avfall, bærekraftig forbruk, emballasje)
- Bolig (kjøp og salg, kvalitet, innemiljø, energibruk, trygghet etc)
- Informasjon og produktmerking
- Sikkerhet ved produkter og tjenester (fysisk/mekanisk, kjemisk, kvalitet, advarselsmerking, brennbarhet)
- IKT (e-handel, IT-sikkerhet, personvern, tilgjengelighet)

Ja		**Nei**	

Hvis ja:
2) På hvilken måte vil standarden ha betydning for forbrukere?
På neste side følger en rekke kontrollspørsmål som kan stilles i forbindelse med identifisering av forbrukerinteresse i pågående og nye standardiseringsprosjekter.

1	På hvilken måte har prosjektet betydning for forbrukeren? (en eller flere områder)	
		Helse
		Sikkerhet
		Stor økonomisk betydning
		Brukervennlighet
		Informasjon (krav til og behov for informasjon)
		Kvalitet og holdbarhet
		Funksjonalitet og vedlikeholdsmuligheter
		Valgfrihet
		Samspill mellom ulike produkter som skal funksjonere sammen (eksempelvis innenfor IT) og mellom produkter og tilbehør
		Annet (spesifiser)
2	Har noen et klart definert forvaltnings-/sektoransvar innenfor dette området? Og i tilfelle hvem?	
3	Hvordan er forvaltningsansvaret utøvd?	
4	Er eksisterende lovgivning tilstrekkelig til å ivareta forbrukerne på dette området?	
5	Er standarden/prosjektet viktig for mange forbrukere eller spesielle sårbare grupper?	

3) Eksempler på standarder og veiledere for forbrukere

Det kan være nyttig å studere eksisterende standarder og veiledere. Noen eksempler er:

- NS-EN 1150 Vernetøy - Synbart tøy for fritidsbruk - Prøvingsmetoder og krav
- NS-EN 13816 Transport. Logistikk og tjenester. Offentlig passasjertransport Definisjon av tjenestenes kvalitet, nivå og målemetode
- NS-EN 13869 Lightere. Barnesikring. Sikkerhetskrav og prøvingsmetoder
- NS-EN 15017 Gravferdstjenester – Krav
- NS-EN 15838 Kundekontaktsenter. Krav til tjenestekvalitet
- NS-ISO 10002 Kvalitetsstyring. Kundetilfredshet. Retningslinjer for organisasjoners behandling av klager
- NS-ISO 22222 Personlig økonomisk rådgivning. Krav til rådgivere innenfor personlig økonomi

Aktuelle veiledere (guider) for forbrukerområdet:

- CEN/CENELEC Guide 2 Consumer interests and the preparation of standards
- CEN Guide 11 Product information relevant to consumers - Guidelines for standards developers
- CEN/CENELEC Guide 14 Child safety Guidance for its inclusion in standards
- ISO/IEC Guide 14 Purchase information on goods and services intended for consumers
- CENELEC Guide 29 Temperatures of hot surfaces likely to be touched
- ISO/IEC Guide 37 Instructions for use of products by consumers
- ISO/IEC Guide 41 Packaging – Recommendations for addressing consumer needs
- ISO/IEC Guide 46 Comparative testing of consumer products and related services – General principles
- ISO/IEC Guide 50 Safety aspects - Child safety and standards - General principles
- ISO/IEC Guide 51 Safety aspects -- Guidelines for their inclusion in standards
- ISO/IEC Guide 74 Graphical symbols – Technical Guidelines for the consideration of consumers' needs
- SN-ISO/IEC Guide 76:2008 Utarbeidelse av standarder for tjenester – Anbefalinger for å ta hensyn til forbrukerspørsmål.
  Denne veilederen viser også hva en tjenestestandard bør inneholde (tema).