

Sober-Body™ Modular Framework — Top-Level White-Paper

Version 0.2 · DRAFT for collaborative branching \ **Date:** 18 June 2025 \ **Maintainer:** Alex Sudakov (+ open-source contributors)

Purpose & Scope

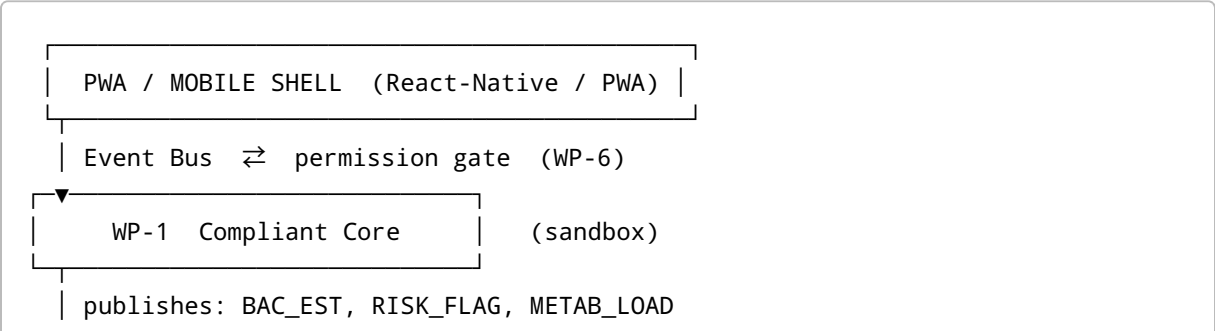
This file is the **constitutional charter** for every other Sober-Body document. It lays down the shared vocabulary, module borders, and data-flow rules that let independent working groups build plug-ins, content packs, or native shells **without endangering** the medically compliant core.

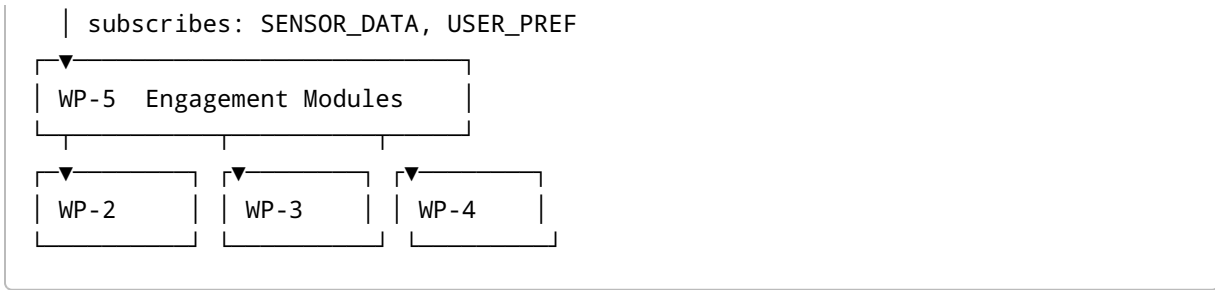
1 · Document Map

WP ID	Title	Primary Owner	Status
WP-0	Top-Level Modular Framework (this file)	Core Maintainers	v0.2
WP-1	Compliant Core — Algorithms & Privacy	Medical / Legal WG	draft
WP-2	Global Stats & Cultural Insights Pack	Research WG	draft
WP-3	Literary / Folklore & Pop-Culture Pack	Copywriting WG	draft
WP-4	Humor & Banter Feeds	Comedy WG	draft
WP-5	Engagement Modules (Games, Challenges)	UX / Game WG	draft
WP-6	Inter-Module Messaging & Policy Filters	Platform WG	draft

Sub-papers live in their own repo branches. Major edits here cascade version numbers downstream.

2 · System Composition (30 000-ft)





Default flow: Core can **ingest** anything; outbound medical data is *filtered* by WP-6 before reaching non-compliant modules.

3 · Technology Guard-Rails ### 3.1 Language & Packaging Strategy

Phase	Runtime core	Tool-chain & distribution
1 (MVP)	TypeScript inside React-Native/PWA	Fast AI-assisted dev; no native build required; published as PWA & Expo bundles
2 (Perf & Security)	Rust → WASM drop-in	Same public API; compiled WASM loaded by JS; gains deterministic maths & Ed25519 signing
3 (Research / CLI)	Python reference core	Optional for data-science notebooks

Node.js is **dev-time only** for bundling & tests; production Node/Electron shells are optional extras (see §3.2).

3.2 Runtime Footprints & Optional Shells

Footprint	When it's used	Extra powers
Pure PWA (default)	MVP launch on web & mobile; offline via service-worker	Web Bluetooth (Chrome / Edge / Android), IndexedDB, Push API
iOS Native Wrapper (Swift)	Needed for HealthKit HRV, BLE on iOS, share-sheet exports	Distributed via App Store when ready
Electron / Tauri Table-Hub	Kiosk tablets in bars; corporate desktop installs	Full BLE/USB stack, wake-lock, auto-wipe sessions

3.3 Content Ratings

Tag	Purpose	Defaults
MED	Clinical & legal text	Always on
PG13	Light humour	Party / Dorm presets

Tag	Purpose	Defaults
ADULT	Edgy or mature humour	Explicit opt-in
PRIVATE_CX	Encrypted, organisation-only educational or policy content	Visible only inside signed corporate presets

3.4 Pack Manifest Snippet

```
module_id: humorpak.en-US.v1
visibility: public          # public | org | private
needs:   [LANG, TIME_OF_DAY]
outputs: [TOAST]
forbidden_inputs: [BAC_EST, RISK_FLAG]
```

4 · Governance Model

1. **Core Maintainers** own WP-0/1 & the bus protocol.
2. **Working Groups (WG)** iterate their WPs; merge via PR & checklist (medical sign-off for MED text).
3. **Certification path** — Experimental module → review → *certified* ⇒ gets looser data permissions.

5 · Messaging Principles & Policy Profiles *Pub/Sub JSON envelopes over the internal Event Bus.*

```
{
  "topic": "BAC_EST",
  "payload": { "value": 0.07, "err": 0.02 },
  "policy": "standard"
}
```

Policy Profiles

Profile	Outbound medical granularity	Typical scenario
strict	fuzzy ranges only (low/med/high)	Corporate compliance or app-store review
standard	rounded BAC, risk flags	Default for public release
offline_relaxed	full precision BAC & metabolite curve	User toggles when off-grid or in research beta

Profile	Outbound medical granularity	Typical scenario
Profiles load from a signed JSON at start-up. Certified modules may request elevated scopes.		

6 · Road-Map Snapshot (updated)

Quarter	Milestones
Q3 2025	Finish WP-1 draft · PWA MVP (TypeScript) · First mini-game
Q4 2025	Dorm & bar pilots (PWA) · Swift wrapper beta · Policy profile engine
Q1 2026	Electron Table-Hub · Certified corporate preset + PRIVATE_CX packs
Q2 2026	Rust→WASM core swap-in (v2) · Public App-Store launch

7 · Next Actions

1. Review the **Policy Profile** table; suggest tweaks.
2. WG leads spin up draft WPs 2-6 using this template.
3. Core team begins MVP PWA scaffold (`react-native-web + expo + idb`).

(end of WP-0 v0.2)