CEPC/FCC-ee Detector naming

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Today: agree on the names to bring to a quick vote

Goal

- Define a name for the CEPC Reference Detector Concept, that could be proposed to the FCC community as one of possibly 2-4 detectors

- Currently, **five** detector concepts already exist in **FCC-ee**:
  - **ALFA**: Advanced, Lightweight and Fine-grained Apparatus
  - **ALLEGRO**: A Lepton collider Experiment with Granular calorimetry Read-Out
  - **CLD**: CLIC-like Detector
  - **IDEA**: Innovative Detector for Electron-positron Accelerators
  - **ILD**: International Large Detector

FCC-ee Detector Proposals: Key Design Philosophies

Detector	Core Philosophy	Key Technical Choices
ALFA	Performance, simplicity, cost	T: All-MAPS silicon tracker ECAL: GRAiNITA: $ZnWO_4$ grains in liquid, WLS fibres + SiPMs HCAL: TBD (concept at early stage) **Magnet: 3 T conventional SC**
ALLEGRO	Particle flow + noble-liquid ECAL	T: MAPS vertex + central tracker TBD + Si wrapper ECAL: Noble liquid (LAr/LKr + Pb/W), PCB readout, inside solenoid HCAL: Scintillator-iron TileCal-like, SiPM readout **Magnet: 2 T SC (shared cryostat with ECAL)**
CLD	Mature silicon-based particle flow	T: Full silicon: pixel vertex + strip/strixel tracker ECAL: Si-W CALICE: 5×5 mm^2 Si pads, W absorber HCAL: Scintillator-steel AHCAL: 30×30 mm^2 tiles, SiPM **Magnet: 2 T conventional SC**
IDEA	Low mass + dual readout	T: MAPS vertex + ultra-light drift chamber + Si wrapper ECAL: Crystal dual-readout (scint.+Cherenkov), inside HTS solenoid HCAL: Dual-readout fibre (scint.+Cherenkov fibres in metal tubes) **Magnet: 2–3 T HTS SC (between ECAL and HCAL)**
ILD	High-precision particle flow (ILC adaptation)	T: MAPS vertex + SIT + TPC (main tracker) + Si outer (SET) ECAL: Si-W CALICE 5×5 mm^2; alt. scint. strips; inside solenoid HCAL: AHCAL (scint./SiPM) or SDHCAL (RPC 1×1 cm^2); inside solenoid **Magnet: 3.5 T SC — FCC-ee MDI adaptation under study**

Where They Diverge – Tracker · ECAL · HCAL · Magnet

Tracker

ALFA
All-MAPS silicon (every tracking layer)

ALLEGRO
MAPS vertex + central tracker TBD + Si wrapper

CLD
Full silicon: pixel vertex + strip/strixel outer

IDEA
MAPS vertex + ultra-light drift chamber (112 hits, dN/dx) + Si wrapper

ILD
MAPS vertex + SIT + TPC (main, large vol.) + SET

ECAL

ALFA
GRAiNITA: $ZnWO_4$ grains in liquid; WLS fibres → SiPMs [early]

ALLEGRO
Noble liquid (LAr/LKr + Pb/W); PCB readout; inside solenoid

CLD
Si-W CALICE: 5×5 mm² Si pads, W absorber [mature]

IDEA
Crystal dual-readout (scint. +Cherenkov); inside HTS solenoid

ILD
Si-W CALICE: 5×5 mm²; alt. scint. strips; inside solenoid [mature]

HCAL

ALFA
Not yet defined

ALLEGRO
Scintillator-iron TileCal-like; SiPM readout

CLD
Scintillator-steel AHCAL: 30×30 mm² tiles, SiPM [mature]

IDEA
Dual-readout fibre: scint.+Cherenkov fibres in metal tubes

ILD
AHCAL (scint./SiPM) or SDHCAL (RPC 1×1 cm²); inside solenoid [mature]

Magnet & Readiness

ALFA
3 T · conventional SC
→ **Early stage**

ALLEGRO
2 T · shared cryostat with ECAL
→ **Developing**

CLD
2 T · conventional SC
→ **Mature**

IDEA
2–3 T · HTS (between ECAL & HCAL)
→ **Developing**

ILD
3.5 T · all cals. inside solenoid
→ **Mature**
FCC-ee MDI adaptation under study

Shortlist of detector names

- **AGORA**: Advanced Glass Optimized Research Apparatus
- **GLASS**: General-purpose Lepton Accelerator Solenoidal Spectrometer
- **4C**: Circular Collider detector with Crystal Calorimeter
- **CHI²**: Comprehensive High-precision Instrument for Characterizing High-energy Interactions
- **ELECTRA**: ELEctron Collider TRanslucent Apparatus
- **FIND**: Fundamental Interaction Novel Detector

- **AHEAD**: Advanced High-energy Electron Accelerator Detector
- **IRIS**: Innovative Research International Spectrometer
- **LUCE**: Leptonic Ultra-granular Calorimetric Experiment
- **LUCIA**: LUminous Calorimetry Integrated Apparatus

AGORA: Advanced Glass Optimized Research Apparatus

- The detector name AGORA describes a next-generation experiment at a lepton collider (CEPC/FCC). Starting with 'A', it ensures early placement in ASCII-sorted lists of proposed detectors. Advanced signals cutting-edge design. Glass Optimized highlights the unique glass calorimeter at the heart of the detector. Research Apparatus denotes a full multi-purpose system (tracking, crystal calorimetry, muon detector, and a 3 T solenoidal magnet). The acronym AGORA – meaning "gathering place" in ancient Greek symbolizes international collaboration ("now" in Portuguese – punchy).
- **Negative connotations:** nothing major
- **Same name experiments:** none
- **Other negatives:** If glass calorimeter is not ultimately adopted, name needs to be changed: for instance, *Advanced Globally Optimized Research Apparatus*

GLASS: General-purpose Lepton Accelerator Solenoidal Spectrometer

- The detector name GLASS describes a next-generation experiment at a lepton collider (CEPC/FCC). General-purpose indicates full capability (tracking, crystal and glass calorimetry, muon system). Lepton Accelerator identifies the collider. Solenoidal Spectrometer denotes a spectrometer within a 3 T solenoidal magnet. The acronym GLASS highlights the unique glass calorimeter at the heart of the detector.

- **Negative connotations:** none
- **Same name experiments:** none
- **Other negatives:** If glass calorimeter is not ultimately adopted, name needs to be changed

4C: Circular Collider detector with Crystal Calorimeter

- The name 4C is short, memorable, and technically descriptive. The four 'C's stand for Circular Collider detector with Crystal Calorimeter – a clear and accurate reflection of the detector's location (CEPC or FCC), its primary technology (a crystal calorimeter, complementing the glass calorimeter), and its purpose. The digit '4' adds a distinctive, alphanumeric element that is uncommon among existing particle physics experiments, giving the name a modern, compact feel. Its brevity makes it easy to cite in papers and speak in meetings.
- **Negative connotations:** none
- **Same name experiments:** Similar one, **C-4** Dark Matter Experiment in Soudan Underground Laboratory
- **Other**: C4 is an explosive, but 4C; 4C pronunciation is close to "foresee"

CHI²: Comprehensive High-precision Instrument for Characterizing High-energy Interactions

- The name CHI² is a clever and highly distinctive choice for a precision detector at a lepton collider. It directly references the χ^2 (chi-squared) statistical test, a fundamental tool in particle physics for comparing data with theoretical models. This embeds the detector's mission – high-precision measurements and rigorous hypothesis testing – directly into its name. The alphanumeric format (letters + digit) is rare among existing experiments, making it immediately noticeable.

- **Negative connotations:** none
- **Same name experiments:** none
- **Other comments:** No mention of technology, but the first "C" could stand for "Crystal" if we want to: "Crystal High-precision Instrument for Characterizing High-energy Interactions"

ELECTRA: ELEctron Collider TRanslucent Apparatus

- ELECTRA is an exceptionally distinctive and memorable name for a next-generation lepton collider detector. The expansion – ELEctron Collider TRanslucent Apparatus – is scientifically accurate, highlighting the machine type and the novel “translucent” glass calorimeter. The name itself has deep roots in both Greek mythology and science, which is a powerful attribute for an international project. While there are historic and niche technical uses of the acronym, this makes the name not only original but also a bold statement of intent for a major experiment at the FCC or CEPC

- **Negative connotations:** none
- **Same name experiments:** none
- **Other:** The name ELECTRA provides a rare combination of scientific accuracy, classical depth, and modern memorability; Slang: vibrantly energetic and a little dramatic

FIND: Fundamental Interaction Novel Detector

- The name FIND (for Fundamental Interaction Novel Detector) is both simple and profound. It perfectly captures the exploratory mission of a new-generation experiment at the FCC-ee or CEPC: to test the Standard Model with unprecedented precision and discover new fundamental interactions. It is short, memorable, and its meaning as a common English word makes it stand out among traditional physics acronyms. The search confirms it is a largely untapped name in high-energy physics, making it a distinct and professional choice.

- **Negative connotations:** none
- **Same name experiments:** none
- **Other**: generic name, not related to our detector

Top Six Candidates – Comparative Evaluation

Aspect	**GLASS** *Glass calorimeter emphasis; evocative single-word acronym*	**AGORA** *Gathering place + now (Portuguese); collaboration & timeliness*	**4C** *Ultra-short alphanumeric; modern and highly distinctive*	**CHI2** *χ^2 statistical test embedded; signals precision analysis*	**ELECTRA** *"Bringing light"; elegant mythology pairs with glass calorimeter*	**FIND** *Common verb, powerful mission; designed to find new physics*
Grammar & Readability	**Good**	**Good**	**Good**	**Good**	**Excellent**	**Excellent**
Active Physics Experiment	None	None	None	None	None	None
Conflicting Detector Name	None	None	None	None	None	None
Negative Connotations	None	**Minor**	None	None	**Minor**	None
Distinctiveness	**High**	**High**	**Very High**	**Very High**	**Very High**	**Very High**
Memorability	**Excellent**	**Excellent**	**Excellent**	**Excellent**	**Excellent**	**Excellent**

Minor connotations: ***AGORA*** *– agoraphobia (weak, unrelated)* ***ELECTRA*** *– Electra complex (clinical term, not a slur)*

ASCII Sort Order & Final Recommendation

ASCII SORT ORDER

Name	1st Char	ASCII	Position vs. ALFA / ALLEGRO / CLD / IDEA / ILD
4C	4	52	**First**: Sorts before all letter-starting names
AGORA	A	65	**First:** sorts before ALFA & ALLEGRO (second character decides order)
CHI2	C	67	**Third**: sorts before CLD (second character decides order)
ELECTRA	E	69	**Fourth**: before IDEA
FIND	F	70	**Fourth**: before IDEA
GLASS	G	71	**Fourth**: before IDEA

Sort order: 4C → AGORA → CHI2 → ELECTRA → FIND → GLASS

FINAL RECOMMENDATION

Choose	If you want to emphasise…
4C	Maximum ASCII-sort advantage and extreme brevity
GLASS	Explicit emphasis on the glass calorimeter technology
AGORA	Collaborative, international symbolism; linguistic richness
CHI2	Clever statistics-inspired name; foregrounds precision
ELECTRA	Elegant cultural resonance; direct link to glass/light
FIND	Simple, mission-driven; communicates purpose directly

All six names are viable — no major conflicts or negative connotations.

AHEAD: Advanced High-energy Electron Accelerator Detector

- The name AHEAD is a powerful and forward-looking choice. The expansion—Advanced High-energy Electron Accelerator Detector—accurately and succinctly describes your experiment's host facility (a high-energy electron accelerator) and its fundamental purpose (a detector). The name itself conveys a sense of progress, leadership, and looking toward the future. Crucially, this unique phrasing creates a clean acronym that does not currently belong to any other experiment, making it a highly distinctive and professional name for a major collider detector.

- **Negative connotations:** none
- **Same name experiments:** none; "Integrated Activities for the High Energy Astrophysics Domain" is an European project in Astrophysics
- **Other negatives:** Can be perceived as pretentious by our FCC colleagues

IRIS: Innovative Research International Spectrometer

- The name IRIS (for Innovative Research International Spectrometer) has strong potential. It is short, memorable, and carries excellent symbolic weight—Iris was the Greek messenger of the gods and the personification of the rainbow, a beautiful metaphor for a spectrometer that analyzes light and particles. Your chosen expansion accurately reflects the nature of your detector as a novel, international research instrument.

- **Negative connotations:** minor; Immune Reconstitution Inflammatory Syndrome
- **Same name experiments:** many across particle physics, nuclear physics and astrophysics: IRIS-HEP, IRIS at TRIUMF, Interface Region Imaging Spectrograph

LUCE: Leptonic Ultra-granular Calorimetric Experiment

- The name LUCE is short, memorable, and carries an elegant scientific meaning; it's the Italian word for "light". Your proposed expansion, Leptonic Ultra-granular Calorimetric Experiment, directly highlights the detector's core technologies. However, the acronym is already in use by several active projects in adjacent physics fields.

- **Negative connotations:** The name is historically tied to the "Istituto Nazionale LUCE", a notorious propaganda institute of Mussolini's fascist regime
- **Same name experiments:** LUCE (LUtetium sCintillation Experiment); the Luce diode accelerator technology, a planned I-LUCE laser facility, and the LUCE (Laser Undulator Charge Exchange) method; "LUXE" (Laser Und XFEL Experiment)

LUCIA: LUminous Calorimetry Integrated Apparatus

- The name LUCIA (Latin for "Light") is an excellent choice that immediately conveys the fundamental purpose of your detector: to capture the faint light from particle showers in its novel glass and crystal calorimeters. The expansion, LUminous Calorimetry Integrated Apparatus, is a robust and accurate description.
- **Negative connotations:** In its Italian context, LUCIA is inextricably tied to Luce, which was the name of the primary newsreel of Benito Mussolini's fascist regime; Somewhat religious connection (St Lucia)
- **Same name experiments:** LUCIA (Line for Ultimate Characterization by Imaging and Absorption) at Soleil synchrotron in France; LUCIA (Laser Ultra-Court Intense et Applications)

SUMMARY

All Ten Candidate Names – Comparative Evaluation

	Recommended						Not Recommended — major conflicts identified			
Aspect	**GLASS**	**AGORA**	**4C**	**CHI2**	**ELECTRA**	**FIND**	**AHEAD**	**IRIS**	**LUCIA**	**LUCE**
Grammar & Readability	Good	Good	Good	Good	Excell.	Excell.	Excell.	Excell.	Good	Good
Active Physics Experiment	None	None	None	None	None	None	Yes	Yes	None	Yes
Conflicting Detector Name	None	None	None	None	None	None	Yes	Yes	Yes	Yes
Negative Connotations	None	Minor	None	None	Minor	None	None	None	Minor	Minor
Distinctiveness	High	High	V. High	V. High	V. High	V. High	High	Low	Low	Low
Memorability	Excell.	Excell.	Excell.	Excell.	Excell.	Excell.	Excell.	Excell.	Excell.	Excell.

Conflicts: ***AHEAD*** *— AHEAD2020 astrophysics programme* ***IRIS*** *— IRIS-HEP & IRIS@TRIUMF* ***LUCIA*** *— active SOLEIL/SLS synchrotron beamline* ***LUCE*** *— active milli-Kelvin calorimeter experiment (same field)*

Summary evaluation

- All six of your original candidate names (GLASS, AGORA, 4C, CHI2, ELECTRA, FIND) remain strong contenders. They are free of direct, critical conflicts and negative connotations.
- The four new names (AHEAD, IRIS, LUCIA, LUCE), while having some positive attributes, come with significant baggage in the form of existing active projects (e.g., LUCE), multiple scientific definitions (IRIS), or major infrastructure (LUCIA). Given this, they are not recommended for your next-generation FCC-ee detector.

- **Today: agree on the votes to bring to a vote**
  - Reduce list further?

Final Six — Recommended Detector Names: Summary

Name	Expansion	Short Justification	ASCII Rank	Verdict: Recommended
4C	*Circular Collider detector with Crystal Calorimeter*	Ultra-short alphanumeric; digit '4' sorts before all letters	**1st** *digit sorts before all letters*	*ASCII sort advantage*
AGORA	*Advanced Glass Optimized Research Apparatus*	"Agora" (gathering place) symbolises international collaboration	**1st** *before ALFA*	*collaborative & international spirit*
CHI2	*Comprehensive High-precision Instrument for Characterizing High-energy Interactions*	Reference to χ^2 statistics; signals a mission of precision	**3rd** *before CLD*	*precision measurement emphasis*
ELECTRA	*ELEctron Collider TRanslucent Apparatus*	Mythological "bringer of light"; pairs with translucent glass calorimeter	**4th** *before IDEA & ILD*	*elegance and cultural resonance*
FIND	*Fundamental Interaction Novel Detector*	Powerful verb capturing the mission to find new physics	**4th** *before IDEA & ILD*	*simplicity and mission clarity*
GLASS	*General Lepton Accelerator Solenoidal Spectrometer*	Explicitly highlights the glass calorimeter; unique in HEP experiments	**4th** *before IDEA & ILD*	*glass calorimeter emphasis*

★ *4C is unique: as a digit, ASCII 52 places it before any letter-starting name (ASCII 65+), including ALFA, ALLEGRO, CLD, IDEA and ILD.*

Final Six — Ranked Recommended Detector Names by Claude

Name	Expansion	Short Justification	Rank
ELECTRA	*ELEctron Collider TRanslucent Apparatus*	Only name whose expansion simultaneously identifies the machine type and the defining technology; universal cultural reach; no conflicts	**1st**
GLASS	*General Lepton Accelerator Solenoidal Spectrometer*	Most direct connection to the glass calorimeter; universally understood; no conflicts; sorts last in ASCII	**2nd**
AGORA	*Advanced Glass Optimized Research Apparatus*	Uniquely appropriate symbolism for a detector bridging two continents and two communities; sorts before ALFA/ALLEGRO	**3rd**
FIND	*Fundamental Interaction Novel Detector*	Clean and conflict-free but generic; says nothing distinctive	**4th**
CHI2	*Comprehensive High-precision Instrument for Characterizing High-energy Interactions*	Clever but expansion is strained and technology connection absent	**5th**
4C	*Circular Collider detector with Crystal Calorimeter*	ASCII advantage is real but the number 4 is culturally inauspicious in the Chinese context	**6th**

Claude: If I were advising your collaboration, I would present ELECTRA as the primary proposal with AGORA as the alternative if the collaboration wants to foreground the cross-continental character of the project rather than the technology. GLASS is the safe, honest option if the collaboration prefers directness over resonance.

★ *AHEAD, IRIS, LUCIA, LUCE - Active conflicts in adjacent fields; not recommended*

Claude analysis of the 10 names

- **Eliminated immediately: AHEAD, IRIS, LUCIA, LUCE**
  - All four have active conflicts in adjacent fields of physics — not just loose associations. LUCE is the most serious: an active milli-Kelvin calorimeter experiment in the same broad domain. LUCIA conflicts with a multi-user synchrotron beamline at SOLEIL and SLS, institutions that many CEPC and FCC-ee collaborators use routinely. IRIS is used by an HL-LHC software project (IRIS-HEP) with which FCC-ee detector groups will interact directly. AHEAD conflicts with a major European astrophysics programme. Using any of these would generate confusion at precisely the institutions you are trying to engage. None of the remaining six have this problem.

1. ELECTRA — Claude top recommendation

- **ELectron Collider TRanslucent Apparatus**
- This is the strongest choice, and the reason is specific to your situation. The expansion does two things simultaneously that no other candidate achieves: it names the machine type (electron collider, which describes both CEPC and FCC-ee exactly) and it names the defining technology (translucent, pointing directly at the glass/crystal calorimeter). No other expansion in the set does both at once.
- The mythological layer reinforces this. Electra, daughter of the sun, is classically associated with light — which is precisely what your calorimeter detects: scintillation light from showers in glass and crystal. This is not a strained metaphor; it is exact. Greek mythology is taught in school curricula across China, Europe, and beyond, so the reference has genuinely universal reach without being culturally specific to either CERN or IHEP.
- There are no active conflicts. The historical LEP proposal is a genuine footnote, not a claim. The Electra complex is clinical vocabulary that no physicist will bring up in a collaboration meeting. The NLP model called ELECTRA is in a completely separate domain.
- The one caveat: ELECTRA sorts 4th in ASCII among your six, which is not ideal. But this is a minor practical consideration against the strength of the name on every other dimension.

2. GLASS — Claude second recommendation

- **General Lepton Accelerator Solenoidal Spectrometer**
- GLASS earns second place for a different reason: honesty. It names the defining technological innovation directly — the glass calorimeter — without any indirection. In a field where detectors are often named with expansions that could apply to almost anything, GLASS is immediately informative. Anyone reading a paper title that says "performance of the GLASS detector at FCC-ee" knows something specific before they open the abstract.
- The expansion is accurate for both CEPC and FCC-ee (both are lepton accelerators with solenoidal spectrometers). No conflicts. No cultural problems. The English word is understood globally.
- The practical disadvantage is real: GLASS sorts last among your six candidates and after the existing FCC-ee concepts in combined lists, which means it will consistently appear at the tail of tables. For a detector proposing to sit alongside ALFA, ALLEGRO, CLD, IDEA and ILD, appearing after them all in every document is a minor but persistent irritation. It also sorts after IDEA and ILD, which feels like the detector is trailing the field rather than leading it.

3. AGORA — strong, with a specific argument for this context

- **Advanced Glass Optimised Research Apparatus**
- AGORA's case is not primarily about the expansion — which is somewhat contrived — but about the idea the word carries. An agora is the public square where different communities gather to deliberate together. In Greek political thought it is the foundation of collective decision-making.
- For a detector explicitly proposed for both CEPC and FCC-ee — two communities in different continents, with different funding structures, different collaborating institutions, and different scientific cultures — this symbolism is unusually apt. AGORA communicates that this detector belongs to a global scientific commons, not to one facility or one region. That is a political and diplomatic asset, not just an aesthetic one.
- In Portuguese, agora means "now," which gives the name a sense of timeliness that is relevant given both machines are being proposed for the 2030s and beyond.
- The principal weakness: the expansion needs the word "glass" to stay connected to the technology, and "Advanced Glass Optimised Research Apparatus" is not as satisfying as "ELEctron Collider TRanslucent Apparatus." The name does better standing on its own meaning than on its expansion. AGORA sorts alongside ALFA and ALLEGRO, which is a genuine ASCII advantage.

4. FIND

- **Fundamental Interaction Novel Detector**
- Clean, conflict-free, and instantly communicates mission. The verb "find" implies discovery and active purpose. No cultural problems. No conflicts.
- My hesitation is that FIND could describe any detector — it does not communicate anything specific about the technology or the machine. A new reader encountering "the FIND detector" learns nothing about what makes it distinctive. For a detector whose glass calorimeter is a genuine innovation, a name that says nothing about it wastes an opportunity. FIND is a safe choice, not an inspired one.

5. CHI^2

- **Comprehensive High-precision Instrument for Characterising High-energy Interactions**
- The cleverness of embedding χ^2 — the workhorse of precision statistical analysis — into a detector name is real and will appeal to experimentalists who spend their lives fitting distributions. No conflicts.
- But CHI2 has two weaknesses in this specific context. First, the expansion is long and strained; the acronym works better than the words it stands for. Second, the χ^2 reference is culturally asymmetric: it resonates strongly in a Western statistics tradition but requires translation of intent for colleagues for whom the Greek letter does not carry the same immediate connotation. More critically, CHI2 says nothing about the glass calorimeter, which is the defining feature of this detector concept.

6. 4C

- **Circular Collider detector with Crystal Calorimeter**
- 4C has one genuine advantage no other candidate possesses: a digit sorts before any letter in ASCII, so 4C would appear first in every combined list of FCC-ee detectors — before ALFA, before ALLEGRO, before everything. This is not trivial.
- However, I place it last among the six viable names for a reason specific to the CEPC context: in Chinese culture, the number 4 (四, sì) is strongly associated with death (死, sǐ) because the characters are near-homophones. Tetraphobia is sufficiently widespread in China that hospitals routinely omit the fourth floor, apartment buildings skip room numbers containing 4, and product lines avoid the digit. For a flagship detector proposed to Chinese funding agencies and the IHEP community, naming it "4C" introduces a cultural friction that is avoidable and unnecessary. This concern would not arise at CERN, but the dual CEPC/FCC-ee context makes it meaningful.

More details on the selection

Evaluation of detector names from Shanzhen

EXtended Crystal e+e- Detector, EXtended Crystal Electron-positron Event Detector	**EXCEED**	The word exceed can have positive and negative connotations.
Fundamental Interaction Non-compact-crystal-glass Detector Fundamental Interaction Novel Detector	**FIND**	FIND is a good acronym but the words in the name are weird, it become too forced. Try "Fundamental Interaction Novel Detector", although still not ideal
Electron Positron Optimized Crystal Apparatus	**EPOCA**	Name is good but the acronym has no scientific meaning, there are better options
Solenoidal Omni-purpose Large-aperture Reference detector (or Solenoidal Omni-purpose Large appaRatus)	**SOLAR**	Not clear why to call it SOLAR, why is this detector related to the Sun? Our aperture is not necessarily large, or the detector is also not larger than other options
Large Unified Multipurpose Instrument for New physics Analysis	**LUMINA**	We do more than just new physics analysis, and the "P" is missing
Innovative Radiation Imaging System or Integrated Reconstructor for Imaging and Sampling	**IRIS**	**Names proposed are strange, (Reconstructor, Imaging, system, sampling). The acronym is fine. Propose: Innovative Research International Spectrometer**
ELEctron Collider TRanslucent Apparatus	**ELECTRA**	**Biased but name indicates electron collisions and translucent relates to the calorimeter without being explicit**
New Experimental Era Detector	**NEED**	**Acronym does not have a positive vibe, can be interpreted as something in need of help, incomplete. Also name evokes a new era which might be too much for the step we are making**
LUminous Calorimetry Integrated Apparatus	**LUCIA**	**Name of a person and Luminous calorimeter sounds strange, but good acronym. Could be seen as religious.**
Symmetric Precision Apparatus for Ring Collider	SPARC	Symmetric is strange, not really a particular characteristic of this detector
A Large Particle Physics Apparatus	**ALPHA**	**Very close to another concept name for FCC (ALFA), also perhaps too common of a name.**
Advanced Positron Electron eXperiment	**APEX**	**Two active experiments with this name: 1) A Prime EXperiment at Jefferson lab; 2) ATLAS Positron Experiment at Argonne**
Advanced Detector for Electron-Positron Facility	ADEPT	ADEPT sounds like something good/capable but not excellent. Also, "T" in Facility sounds forced, and the detector is not a facility, usually that would be the name of the lab, or the accelerator.
Comprehensive High-precision Instrument for Characterizing High-energy Interactions	**chi², χ^2**	A bit strange name, but perhaps acceptable
Higgs and Electroweak Laboratory for Innovative ObservationS	**HELIOS**	Same problem, it indicates to somehow be related to the sun.
Translucent Electron Collider Apparatus	**TECA**	Acronym without a meaning, otherwise it is fine

37 name candidates

- 9 violate one or more of the provided guidelines

Future Omnipotent Crystal apparatUS (can change to Omni-purpose)	FOCUS	Already used – Fermilab experiment FOCUS (photoproduction of charm)
Large Unified Calorimeter and Imaging Detector	LUCID	Already used – ATLAS luminosity detector LUCID
Electroweak Precision Detector	EPD	Already used – STAR Event Plane Detector
Collider Observatory for Bosons, Resonances, and Accuracy	COBRA	Already used – COBRA double-beta decay experiment
AppaRatus for Cepc Higgs factory	ARCH	Contains “Cepc” (CEPC) explicitly; also mentions Higgs alone without Z
High-precision Apparatus for fundamentaL Observables	HALO	Already used – HALO supernova neutrino experiment
Large Unified New-physics Apparatus	LUNA	Already used – LUNA nuclear astrophysics experiment
Comprehensive Higgs Experiment Facility	CHEF	mentions Higgs alone without Z
The Detector for CEPC Higgs measurements	TORCH	Contains “Cepc” (CEPC) explicitly; also mentions Higgs alone without Z

37 name candidates

- 4 has nationality bias

Pioneering Apparatus for Novel Groundbreaking Unraveling, Precision Apparatus for Novel Glass-crystal calorimetry and Understanding, P article Apparatus for Next Generation Understanding	PANGU	Nationality bias (Chinese)
Spectrometer for Higgs Top Z experiment	Spitze	Nationality bias (German)
New Experiment for Z and Higgs boson Accuracy	NEZHA	Nationality bias (Chinese)
General Purpose Detector for Z and Higgs factory	GEZHI	Nationality bias (Chinese)

37 name candidates

- 6 not describing a particle detector

Multi-Object Scintillator Array for Imaging and Calorimetry	MOSAIC	Scintillator Array
Leaping Exploration with Advanced Precision	LEAP	Exploration
W HIggs and Z boson DOMinance	WHIZDOM	DOMinance
Advanced HEP Experimental Analysis Device	AHEAD	Analysis device?
Advanced Multimodal Observatory for Emerging New Physics Arena	AMOENA	Multimodal Observatory ?
Crystal Calorimeter for Circular Collider, Crystal Calorimeter based detector for Circular Collider	C4 or 4C	Calorimeter

37 name candidates

- 2 sounds weird ?

reFEreNce detector for a Future Electron PositoN collider	FENFEN	FENFEN weird
Luminescent Unveiling Collider Experiment or Leptonic Ultra-granular Calorimetric Experiment	LUCE	

16 remains

- Not necessarily ideal, but not yet excluded (personal biased opinion)

EXtended Crystal e+e- Detector, EXtended Crystal Electron-positron Event Detector	**EXCEED**
Fundamental Interaction Non-compact-crystal-glass Detector Fundamental Interaction Novel Detector	**FIND**
Electron Positron Optimized Crystal Apparatus	**EPOCA**
Solenoidal Omni-purpose Large-aperture Reference detector (or Solenoidal Omni-purpose Large appaRatus)	**SOLAR**
Large Unified Multipurpose Instrument for New physics Analysis	**LUMINA**
Innovative Radiation Imaging System or Integrated Reconstructor for Imaging and Sampling	**IRIS**
ELEctron Collider TRanslucent Apparatus	**ELECTRA**
New Experimental Era Detector	**NEED**
LUminous Calorimetry Integrated Apparatus	**LUCIA**
Symmetric Precision Apparatus for Ring Collider	SPARC
A Large Particle Physics Apparatus	**ALPHA** （**conflict with CERN new concept ALFA，Advanced, Lightweight and Fine-grained Apparatus**）
Advanced Positron Electron eXperiment	**APEX**
Advanced Detector for Electron-Positron Facility	ADEPT
Comprehensive High-precision Instrument for Characterizing High-energy Interactions	chi^2, χ^2
Higgs and Electroweak Laboratory for Innovative ObservationS	HELIOS