



International Summit on Vaccine Coding & Standards

NATHAN BUNKER & FRANÇOIS KAAG

FRIDAY, MAY 9, 2025

BORDEAUX FRANCE

Building Something That Lasts

A Vision for IVC

We've Made a Start

- We've come a long way: from side project to real traction
- Here today are the people who will make it happen

We Solve Problems, Not Just Talk About Them



Technical Core



Community That
Shares



Funding with a
Focus



We Solve Problems, Not Just Talk About Them



Technical Core



- NUVA is our core solution
- We must invest in it to solve real-world problems.
- The value is there, now we must support it.

We Solve Problems, Not Just Talk About Them

- This group is forming.
- Not fast, but right.

Technical Core



Community That
Shares

- Everyone here has knowledge others need.
- We must build systems that make that sharing routine.

We Solve Problems, Not Just Talk About Them

- We don't need rescue.
- We need smart investment.
- Let's define what's worth funding and find partners who believe in that too.
- And let's stay lean.



Funding with a
Focus

We Solve Problems, Not Just Talk About Them



Technical Core



Community That
Shares



Funding with a
Focus



What We Need

Create IVC Org

IVC Group Support

Training Materials

Next In-Person

NUVA Core Support

Create IVC Org

Create IVC Org

- Easiest start, quick win
- Organized by and represents the interests of vaccine code professionals
- One idea:
 - Offer membership for professionals at a nominal cost, like a magazine subscription (~\$20 a year?)
 - Use funds to ensure basic operation of IVC
 - Formally recognize contributions and professional role
 - Provide access to training and leadership opportunities
 - Create base to represent interests of community to other organizations

Next In-Person

Next In-Person

- Medium difficulty
- Create a recurring, in-person event that serves as the global hub for vaccine code experts, combining hands-on technical collaboration, presentations, and capacity building.

Next In-Person

Next In-Person

- Core Objectives
 - Advance global vaccine coding interoperability
 - Provide training and peer development for professionals
 - Facilitate working sessions for groups maintaining tools like NUVA
 - Celebrate and strengthen the IVC community
 - Highlight success stories, identify ongoing challenges

Next In-Person

Next In-Person

- Frequency: Every 2 years (odd years)
- Location: Rotate between regions
- Duration: 2.5 days
 - **Day 0** (Optional Half-Day): Pre-meeting training (e.g., NUVA, RDF/SPARQL, HL7 code handling)
 - **Day 1:** Keynotes, panels, country updates, community vision
 - **Day 2:** Working group meetings, breakout discussions, technical topics
 - **Day 3** (half-day): Report-backs, long-term planning, and closing

Next In-Person

Next In-Person

- Participants: 100 attendees max
 - Vaccine code experts
 - Immunization informatics professionals
 - WHO, SNOMED, UMC, CDC, PAHO, EU institutions, software vendors
 - Academic or regional public health data groups
 - Sponsors/partners

Next In-Person: Key Components

Next In-Person

1. Training Track

- NUVA basics and advanced use
- Coding standards (HL7, FHIR, SNOMED, CVX)
- Mapping methods
- Practical hands-on labs

2. Working Groups

- NUVA code maintenance
- Metrics and quality assessment
- Mapping standardization
- Policy alignment

3. Presentations and Panels

- Country/regional updates
- Implementation stories
- Code interoperability case studies
- Tools and tech demos

4. Community-Building & Recognition

- Lightning talks from new contributors
- “IVC Fellow” recognition or similar
- Group photos, shared meals

Next In-Person: Funding Strategy

Next In-Person

Sponsors:

- Foundations
- Global health orgs (e.g., PATH, WHO, PAHO)
- Government agencies (CDC, EU DG SANTE)
- Vendors (software developers, health tech companies)

Use of Funds:

- Cover venue, logistics
- Support 15–20 scholarship travel grants
- Fund meeting planning and materials

Travel Sponsorship Program

- Transparent, merit-based application
- Evaluation criteria:
 - Active contributor to IVC (e.g., meeting attendance, tools shared)
 - Regional representation
 - Diversity in experience and country income level
 - Clear benefit to community

Training Materials

Training Materials

- Easier win, visible output
- If we're going to grow this field, we need to stop assuming that vaccine coding expertise just magically appears. It doesn't. We can build training that explains NUVA, mapping, and cross-code system logic — and we can build it once, use it forever.
- This training isn't just for experts. It's also for implementers, program managers, and people onboarding to teams — people who need to understand vaccine data but aren't specialists yet.
- We want training that scales. We'll make videos and online tools, but we can also offer live courses if funding supports it. That way, when someone new joins the field in 2026 or 2030, there's already a path to help them succeed.

Training Materials

Training Materials

- Permanent, Scalable Resources to Support Vaccine Code Experts
- Core Training Components
 - Short Video Modules – 5–15 min each, reusable and updatable
 - Online Exercises & Case Studies – Real-world coding scenarios, quizzes
 - Live Virtual Courses – Instructor-led deep dives (when funded)
 - Downloadable Tools – Templates, code mapping guides, vocab checklists
 - Multilingual Materials – Prioritize French, Spanish, and other key languages

Training Materials

Training Materials

- Delivery Formats
 - Website with structured learning paths (Beginner → Advanced)
 - Self-paced Certification Path for individuals or organizations
 - Training-as-Development: Use course creation to grow the community
- Uses and Audiences
 - New vaccine code custodians joining national teams
 - Health informatics implementers integrating systems
 - Cross-country partners (e.g. WHO, PAHO, EU projects)
 - Students and early-career professionals

IVC Group Support

IVC Group Support

- Medium difficulty
- The International Vaccine Codes Initiative is more than a vision — it's a living, growing community. Supporting this community requires dedicated coordination to build relationships, ensure continuity, and turn discussion into action.

IVC Group Support

IVC Group Support

- Monthly Meetings
 - Organize and facilitate regular community calls
 - Recruit speakers and coordinate discussion topics
 - Follow up on shared resources and unresolved questions
- Country & Organizational Interviews
 - Conduct structured 1:1 interviews to understand each country's vaccine coding landscape
 - Build a repository of code systems, terminology usage, and local challenges
 - Maintain as a reference library for use by the IVC community

IVC Group Support

IVC Group Support

- Contact and Relationship Management
 - Track who is involved in which organizations and initiatives
 - Maintain context across shifting personnel and institutional structures
 - Bridge language and organizational differences to keep communication flowing
- Representation and Advocacy
 - Attend external meetings (e.g. HL7 WGM, WHO consultations) as an IVC liaison
 - Ensure the vaccine coding community's needs are heard in larger standards conversations
 - Advocate for improvements in terminology systems on behalf of IVC participants

IVC Group Support: Why It Matters

IVC Group Support

- This is about community enablement
- Group support allows vaccine code experts to focus on solutions by:
 - Making meetings productive and well-targeted
 - Connecting people with similar problems or answers
 - Preserving institutional memory across regions and initiatives
 - Giving the group a consistent voice and presence on the global stage
- Without someone holding the threads, the community can't weave anything together.

IVC Group Support: Vision

IVC Group Support

- Staff support:
 - Expands outreach to new countries and partners
 - Regularly updates code system documentation
 - Supports training development and in-person event planning
 - Anchors the IVC community with reliable communication and continuity

NUVA Core Support

NUVA Core Support

- High difficulty, high value
- At the heart of the International Vaccine Codes Initiative lies NUVA.
- It is not just a reference or a mapping table. NUVA is a living, evolving technical solution: a structured, ontology-based vocabulary system that can interpret, translate, and organize vaccine codes from across the world.
- Maintaining and growing NUVA is the most resource-intensive and technically demanding part of IVC.

NUVA Core Support

NUVA Core Support

- Software and Tool Development
 - Build and maintain the NUVA code system and supporting tools
 - RDF structure, APIs, SPARQL query endpoints, visualization interfaces, etc.
 - Enable other systems to integrate with NUVA through structured, consistent interfaces
 - Ensure multilingual support and scalable data maintenance

NUVA Core Support

NUVA Core Support

- Technical Engagement with Experts
 - Collaborate with vaccine code experts globally to refine and validate codes
 - Add new vaccine concepts based on real-world use and national needs
 - Work directly with countries, implementers, and vendors to align use cases

NUVA Core Support

NUVA Core Support

- Ongoing Scientific and Technical Governance
 - Establish and coordinate scientific and technical advisory committees
 - Operate under community guidance to ensure transparency and relevance
 - Create publication-worthy documentation to support code definitions and decisions

NUVA Core Support: Why It's Essential

NUVA Core Support

- The only part of the IVC initiative producing code, software, and data at the global scale.
- Every success story in vaccine interoperability depends on:
 - Having the right vaccine concepts represented
 - Ensuring mappings between systems are accurate
 - Making these resources technically usable by EHRs, registries, and analytics tools
- Without NUVA, IVC would be a conversation.
- With NUVA, it's a solution.

NUVA Core Support: The Path Forward

NUVA Core Support

- NUVA is currently maintained by SYADEM, who developed it as a public good and have donated their time and tools to support the IVC vision.
 - This is not a side project.
 - It is the foundation on which global vaccine data interoperability must be built
- To continue:
 - At least 1–3 FTEs are needed long-term to support NUVA's development
 - Funding must support both core development and engagement with the broader community
 - Partnerships must ensure that NUVA remains a trusted, shared resource — open, usable, and growing

Growing IVC

- Can I borrow a cup of sugar...
- We want to keep IVC both lean and relevant



How Can You Help?

Task	Example
Content for Monthly Meeting	Present a case study, share a coding challenge
Recruit 1-2 Contacts	Connect us to colleagues in your country
Review or Translate Materials	Help improve or localize training
Help Build Training Content	Record a 5-min explainer or provide example records
Help Plan the Next In-Person Meeting	Join logistics/planning working group
Advocate in Your Org	Raise awareness, seek internal buy-in or support