

Masterclass openEHR across Europe and China

Sponsored by The Swedish Association of Medical Informatics and Cambio.

August 23, 2022, 08:00-11:00 (EU); 14:00-17:00 (CN)

Join Zoom Meeting

<https://cesnet.zoom.us/j/96579486074?pwd=U3FjWnFuTk8vRWlCN0Q0ZU1iclZlZz09>

Meeting ID: 965 7948 6074



**Mikael
Nyström**



**Erik
Sundvall**



**Shan
Nan**



**Martin
Grundberg**



**Patrik
Georgii-
Hemming**



**David
Wetterbro**



**Anette
A
Larsson**



**Xudong
Lu**

Summary

This masterclass on OpenEHR across Europe and China starts with an introduction to OpenEHR. It follows with units on decision support, industry engagement, use of SNOMED CT, developments in Sweden and China, and outlook to other countries.

Preliminary Program

08:00 (CET)/14:00 Welcome and introduction to the session



Mikael Nyström

08:05 (CET)/14:05 (CN) Introduction to openEHR



Erik Sundvall

- Agree where - inside or outside the EHR systems?
 - The difference between interoperability and intraoperability.
- Exploring categories of reinterpretation problems.
 - Some conversions are possible to do automatically with an algorithm, some others are possible with a human in the loop (manually reinterpreting every transfer) and yet some other conversions are impossible.
- Best of Breed vs Best of Suite.
 - Historical attempts to solve integration. Is a Best of Breed 2.0 emerging?
- Integration strategies and their consequences
 - Core system strategy
 - Mapping/conversion based strategy
 - Shared, model-driven strategy
- What is openEHR and how does it address fundamental problems?
 - Archetypes, templates and forms
 - Maximal dataset vs least common denominator
 - Technical reference model

- How the parts fit together
- Separation of concerns and international sharing of workload.
- HL7 FHIR and openEHR, comparisons and combinations.
 - FHIR and openEHR have different purposes and approaches
 - Handling partial overlaps
- Examples and toolchains for openEHR

09:05 (CET)/15:05 (CN) openEHR and decision support



Shan Nan

- Decision support related components in openEHR
 - openEHR Expression Language (EL)
 - openEHR Guideline Definition Language (GDL)
- Combine GDL and EL for comprehensive decision support applications
 - Approach of combining EL and GDL for decision support

09:20 (CET)/15:20 (CN) Break

09:30 (CET)/15:30 (CN) openEHR and SNOMED CT



Mikael Nyström

- openEHR's and SNOMED CT's strengths and weaknesses
 - When information is best represented in openEHR versus SNOMED CT
- Combine openEHR and SNOMED CT to represent information
 - Terminology binding

09:45/15:45 Caregivers and vendors perspective on openEHR,



Martin Grundberg & Patrik Georgii-Hemming

- The benefits for caregivers to use openEHR
- The benefits for vendors to use openEHR

10:05 (CET)/16:05 (CN) openEHR International



Mikael Nyström

- How openEHR International work
- How openEHR International takes care of the openEHR specifications, content and other artefacts
- How to be involved in openEHR
- openEHR national affiliates

10:20(CET)/6:20 (CN) Case study, openEHR in Sweden



David Wetterbro & Anette A Larsson

- How the Swedish openEHR collaboration works

10:35(CET)/16:35 (CN) Case study, openEHR in China



Xudong Lu

- How the Chinese openEHR collaboration works
 - Healthcare Modeling Collaboration efforts on specific domains
- Case report: how openEHR helps to improve the data sharing among different cohorts

10:50 (CET)/16:50 (CN) Closing remarks

Mikael Nyström

11:00(CET)/ 17:00 (CN) End of Masterclass

Speakers Biography Sketch



Mikael Nyström



Erik Sundvall



Shan Nan



Martin Grundberg



Patrik Georgii-Hemming



David Wetterbro



Anette A Larsson



Xudong Lu

Mikael Nyström is senior informatician in the central Solution Management and Architecture team at Cambio Healthcare Systems where he works with informatics solutions in Cambio's current and future products. Mikael has about twenty years of experience working with openEHR and SNOMED CT in both research and implementation projects. Mikael is a board member of openEHR International and Swedish Federation for Medical Informatics. He has also been involved in SNOMED International's advisory groups since its start.

Erik Sundvall (PhD in Medical Informatics, MSc in IT). Erik has 15+ years of openEHR experience and is a member of the openEHR SEC that maintains the technical specifications. In Erik's main job as Information Architect at Karolinska University Hospital he works with the transition from legacy to open systems, where standards like openEHR, HL7 FHIR and SNOMED CT are key ingredients. He also teaches and performs research as an affiliated researcher at Karolinska Institutet. and as an act. lecturer in Medical Informatics at Linköping University.

Martin Grundberg is the Product Manager of the Cambio Platform, a platform using openEHR as a core component for managing patient data. Martin has a background in informatics and has long been working with development and implementation of Cambio's regional EHR (Cambio COSMIC). Now Martin is focusing specifically on questions around enterprise usage of openEHR and how to transition from proprietary models and large monolithic EHRs into truly open systems. Martin is also a member of the HL7 Sweden board.

Patrik Georgii-Hemming is Chief Medical Information Officer at Karolinska University Hospital. He is a physician with a specialization in Clinical Genetics and he has a master's degree in Computer Science. He did his PhD in tumor biology and during his post-doctoral studies he investigated the role of non-coding RNAs.

David Wetterbro is Informatician with 8 years of experience in the health care domain. Special interests are semantic interoperability and bringing the field of health informatics into the education of health care professionals. Current shared Product owner of the Swedish openEHR collaboration.

Anette A Larsson is senior System Analyst and Reg.nurse with over 20 years of experience in healthcare and welfare domain. Special interests are legislation requirements, standardization and code systems. Current shared Product owner of Swedish openEHR collaboration.

Shan Nan (nanshan@zju.edu.cn) is an Associate Professor of Biomedical Engineering at Hainan University. He received two Doctoral degrees from Zhejiang University and Eindhoven University of Technology. He is an experienced researcher on clinical decision support techniques, applications, and implementations. His recent research interests mainly focus on applying openEHR Expression Language in clinical decision support applications to improve the interoperability between clinical decision support systems and clinical information systems.

Xudong Lu is the Professor of Medical Informatics in Biomedical Engineering Department of Zhejiang University/China since 2012, the Visiting Research Professor of Information Systems Group of Industrial Design Department of Technical University Eindhoven/the Netherlands since 2013. He is

also the Secretary General of Chinese Medical Software Association since 2014, the member of American Medical Informatics Association and Hospital Information Management System Society since 2007, and the Management Board Member of openEHR Foundation since 2018. His research interests include clinical data modeling, clinical data integration, health big data analytics, clinical decision support and clinical process intelligence. He has led several national projects since 2006 and published over 100 publications around these areas.

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