City x City Festival

KEREVAL Introduction & Ideas
Located in Rennes, Brittany, France

Independent SME with 18 years of experience

4.1 M€ turnover in 2020, 24% of which is generated internationally

65 employees

+20% annual growth

16% of production activity in R&D

OUR VALUES: Excellence – Respect – Commitment

Public
Our services

Consulting
Test Process audit

Innovation & R&D projects

Testing strategy and design

Development & maintenance of test benches

Test execution

Automation / Devops

Connectathons & Projectathons organization

Public

OUR TRAININGS

OUR ACCREDITATIONS
Interoperability in the eHealth domain

IHE is an initiative by healthcare professionals and industry to improve the way computer systems in healthcare share information. IHE promotes the coordinated use of established standards such as DICOM and HL7 to address specific clinical needs in support of optimal patient care. Systems developed in accordance with IHE communicate with one another better, are easier to implement, and enable care providers to use information more effectively.
Our activities as IHE partner

Technical organisation of European CAT & support to Asia and USA CAT
Development and in-Service Support of Interoperability testing platform Gazelle
Conception and Development of Conformity and Interoperability tests (business (aval))

Simulator and validator development (business level)
Consulting & Training

Gazelle Platform

Kereval partner of IHE Consortium
Testing the interoperability framework

IHE (Integrating the Healthcare Enterprise)

SDOs

IHE technical committees

International eHealth profiles

Turnitsa’s Model

User needs

National / local initiatives

Vendors’ implementation

Testing platform

Testing events (international, national, project levels)

Interoperability framework
(functional and technical specifications based on (1) profiles + (2) Norms & Standards)

<table>
<thead>
<tr>
<th>Interoperable</th>
<th>Connectable</th>
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</thead>
<tbody>
<tr>
<td>Level 5</td>
<td>Level 0</td>
</tr>
<tr>
<td>Dynamic</td>
<td>Dynamic Context understood</td>
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<tr>
<td>Pragmatic</td>
<td>Context understood</td>
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<tr>
<td>Semantic</td>
<td>Meaning understood</td>
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<tr>
<td>Syntactic</td>
<td>Common Format</td>
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<tr>
<td>Technical</td>
<td>Common Physical and Transport Layers</td>
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<tr>
<td>Connectable</td>
<td>None</td>
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<tr>
<td>Level 1</td>
<td>Stand-alone</td>
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</tbody>
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Public
Key figures of Connectathon 2017 at Venice in one week

- **90** sociétés
- **360** participants
- **60** moniteurs
- **115** systèmes
- **3235** tests

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IHE: Why does it work?

Community

— International
— European
— National
— [...]Which defines interoperability characteristics (with, if necessary, instantiations related to business and local regulation)

Interoperability is necessary (Information Digitalization)

— Syntactic
— Semantic
— Contextual

Software companies which implement these standards
Technical committees, User group
Connectathons, projectathons
Conformity Assessment

Public
Our vision and idea

Smart City
- Has a community and working groups at different levels
- Needs interoperability
- It should work !!!

Our idea
- Develop a first proof of concept on a testing platform to show how to handle OASC/MIMS interoperability testing with operational use cases (first test implementation & results with MIMs 1 & 2)
- Work with OASC and other interested partners to define smart city interoperability framework “at business level” (water management, air management, well-being, etc.) based on real use cases and needs
- Organize testing events and show cases
- And why not, define a “conformance body” to push the recognition of smart city interoperability and the adoption at different levels (Europe, country, city)
Testing interoperability based on OASC

OASC

Norms and standards

OASC technical committees

MIMs

User needs

National / local initiatives

Vendors' implementation

Testing platform (including testing plans and simulators/validators)

Smart city Interoperability requirements

Interoperability framework
(functional and technical specifications based on (1) MIMs + (2) Norms & Standards)

OASC testing events
(international, national, project levels)
Thank you for attention

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Testing interoperability !!!