ComplexWorld

Turning ideas into actions

innovation for a complex world
The idea

The ComplexWorld network

Complexity Science

understand, model, drive and optimise

ATM behaviour and evolution and

the complex relationships between its different elements
... the actions
# A look back

<table>
<thead>
<tr>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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</thead>
<tbody>
<tr>
<td><strong>White Paper</strong></td>
<td><strong>Position Paper</strong></td>
<td><strong>CWWiki</strong></td>
<td><strong>CW Book</strong></td>
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<tr>
<td>State of the art</td>
<td>Uncertainty</td>
<td>40 contributors</td>
<td>Complexity Science in</td>
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<tr>
<td>Challenges</td>
<td>Emergent behaviour</td>
<td>80 pages</td>
<td>Air Traffic Management</td>
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<tr>
<td>Roadmap</td>
<td>Data Science</td>
<td>1800 updates</td>
<td></td>
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<tr>
<td></td>
<td>Metrics</td>
<td>415,500 views</td>
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<td></td>
<td>Resilience</td>
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... around,

2015

Book finishing

Chapter proofs in hand

Publishing in coming months
... around, 2015

The 8 Complexity Challenges

Developing and demonstrating new metrics in ATM

Building resilience into systems design taking into account emergent behaviour

Understanding trade-offs through metrics

Data Science and managing and visualising (big) data

Integrating multi agent systems into decision support tools

Integrating uncertainty into decision-support tools

Characterization of meteorological uncertainty

Model-based identification of emergent behaviours at design stage, including comparison vs. reality
Collaboratively addressing the challenges

<table>
<thead>
<tr>
<th>CW Blog</th>
<th>CW Events</th>
<th>CWWiki</th>
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<tbody>
<tr>
<td><a href="http://www.complexworld.eu/blog">www.complexworld.eu/blog</a></td>
<td>19 Events in 5 years</td>
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<tr>
<td></td>
<td>1 Launching conference</td>
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<td>3 Tutorials</td>
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<td>7 Workshops (2 in Data Science)</td>
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<td>3 Seminars</td>
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<td>5 ECCS Satellites</td>
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... and forward

What is Complexity and Data Science Days?

This event consists of three sessions on complexity and data science for aviation. It will cover the present research status within complexity and data science, along with a discussion on applying data analytics to mobility challenges in Europe.

If you would like more information about the event please feel free to reach out to our team at:

innaxis@innaxis.org

Complexity and Data Science Days

12-13 April 2016
Brussels, Eurocontrol HQ

data science - mobility - aviation - complexity
... and forward

**Next SJU Call for Networks**

Complexity + Data Science

Focus on performance

High involvement of industry partners