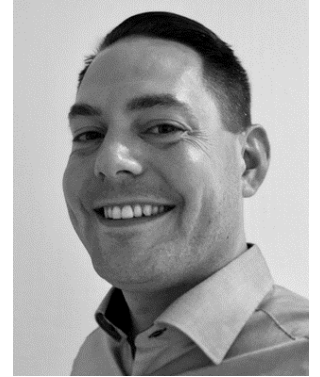# Why OpenBIM should be taught and not bought

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Who am I?

Work:

- ICT-leader & BIM-specialist at Bravida Danmark A/S.

- ICT-leader & BIM-specialist at Contiga A/S.

- ICT-/BIM-coordinator at Søren Jensen Rådgivende Ingeniørfima A/S.

- ICT-/BIM- & CAFM-coordinator at Wicotec Kirkebjerg A/S.

- Intern and student helper at CEBRA A/S.

Education:

- ICT-leader.

- Constructing Architect (BATCOM: Bachelor's degree in architectural technology and Construction Management).

- Carpenter.

"I heard that an IFC is just a 3D-PDF"

- Projects and companies buy IFC-files – yet they do not understand what they are.

- Companies make and deliver IFC-files – yet they are not aware of what they made and delivered.

- People speak about IFC-files – yet they think it's just another name for OpenBIM.

- Software companies develop utilities for specific software and not for OpenBIM.

- FM-organizations still ask for proprietary file formats – so they can edit the project later on.

- Professional clients demand IFC-files – yet they ask disciplines to work in proprietary formats.

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Some of the reality today

- IFC-files become very large – especially for HVAC-disciplines.
  - Plumbing, water & heating-model of more than 1 GB!
  - Could be reduced by up to 75 % in file size.

- Software vendors need more focus on OpenBIM-workflows and less on each other.
  - A software vendor couldn't read a BCF-file in version 2.1 from BIMcollab ZOOM.
  - They thought everyone just used Solibri …

- Clients need to understand and work with OpenBIM-workflows.
  - A client has demanded the use of and delivery of IFC-files all the way through a project and all of its phases.
  - Yet the entire project in all it's phases are made in, and collaborated on, in proprietary formats.

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The OpenBIM-workflow is inclusive

- No one should be excluded from participating in a project and the BIM-workflow.

- Everyone should be allowed to use the software best fit for their purpose and not be reliant on others choices.

- All necessary parties involved in a project should be a part of the workflow – even those that aren't part of the "BIM-world" in their daily routine.

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The OpenBIM-workflow is interactive

- Pre-agreed workflows between stakeholders with focus on communication is key.

- Workflows that enable transfer of data and communication between "silos" both ways is a must.

- Incorporating parties that aren't present in the "normal" BIM-workflow is necessary.

- Data cannot tell you how it's "supposed to be understood".

- Data and communication (design intent) goes hand-in-hand.

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The OpenBIM-workflow is focused

- All data should be available in an open format.

- But all data shouldn't be delivered to everyone.

- Data-flows need to be focused and relevant for the receiving party.

- Data-flows need to be agreed upon and managed throughout the project.

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What can we learn?

- Make sure that your internal workflow is ready for OpenBIM.
  - Is your whole company revolved around proprietary formats?
  - Is your data available in open formats for anyone?

- Be aware of the data you have and generate.
  - Who is it for and can the receiving party understand it without context?

- Filter your data.
  - Does the receiving party need all of it and do you have duplicate data?

- Does you (OpenBIM) workflow incorporate everyone needed in the process?
  - Is your workflow only made for "BIM-people"?

- Analyse your software uses and determine if they're truly incorporated with OpenBIM.
  - Do you perhaps need new software?
  - And does the software from your suppliers match your OpenBIM-workflow?

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What to teach

- Explain your workflows to your client.
  - So they understand what you're capable of and what you need (pre-agreed workflows).
  - Tell them about the benefits of using OpenBIM on the project.

- Speak with the parties/other disciplines you're involved with and agree on your data-flows.
  - What data are you delivering, how are you delivering it and why this specific data-set?
  - What data do you want to receive, how do you want to receive it and why this specific data-set?

- Communication is <u>always key</u> to any good project.
  - If you can explain to others why an OpenBIM-workflow is essential it will not only help you, but also them.
  - If the parties delivering data to you can see what you use it for, and how you use it, they will get a better understanding of what you're asking of them.

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Why OpenBIM should be taught and not bought

- If you teach about your data-usage people will start to understand your needs.
    - Until then they just deliver an over-sized IFC-file according to the contract.

- If you explain your OpenBIM-workflow people will feel like they are a part of something.
    - They will get a purpose with the data they deliver to you because they know what you use it for and how.

<u>Most importantly:</u>

- If we use, teach and talk about OpenBIM – the more will follow.

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Thank you for listening!

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