

WP2: PRODUCT DATA IN THE CLOUD – THE NEXT STEP FOR MANUFACTURERS, SOFTWARE COMPANIES AND PLANNERS



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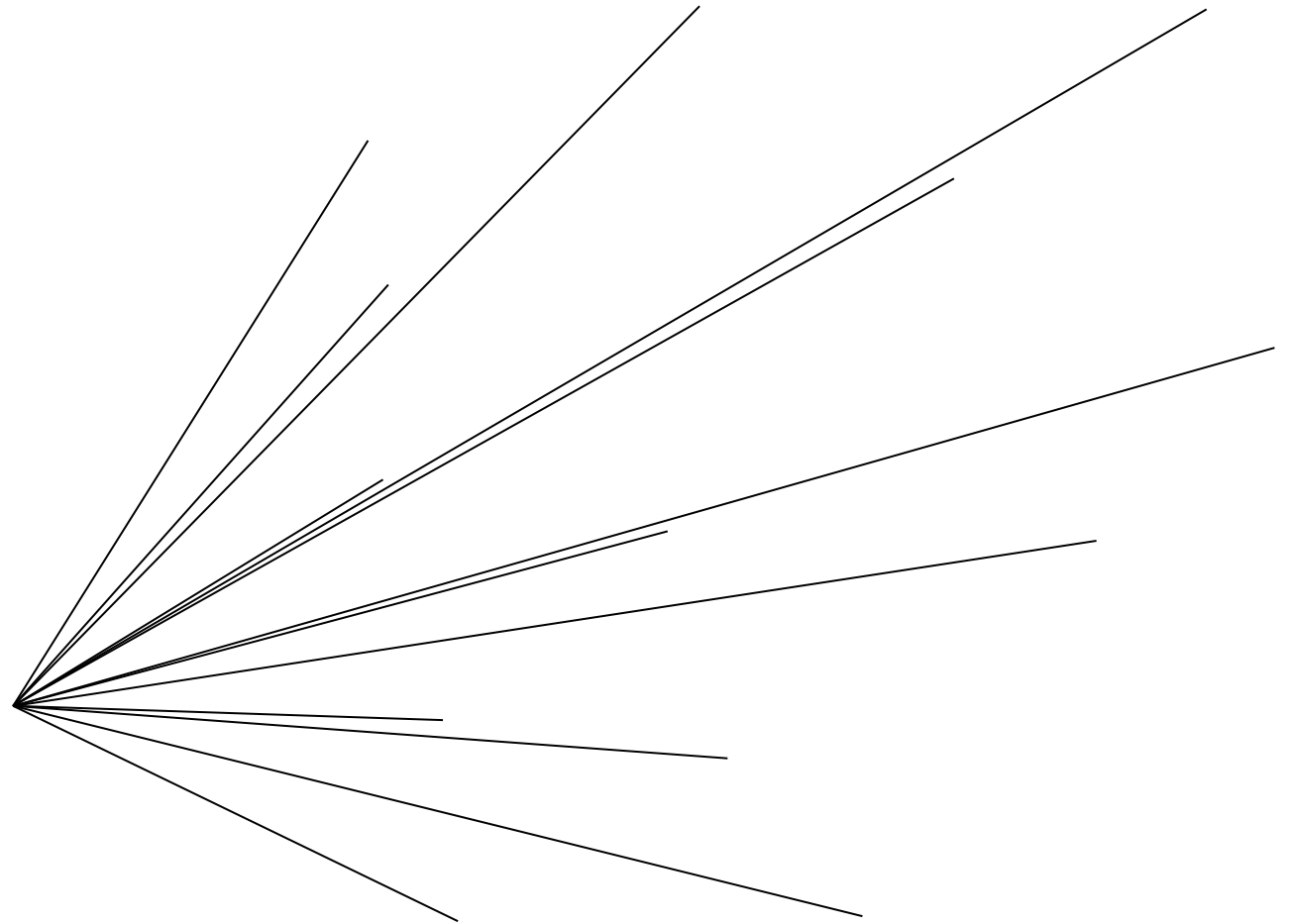
Product Data

large amount
of product
data from
manu-
facturers

Software Applications

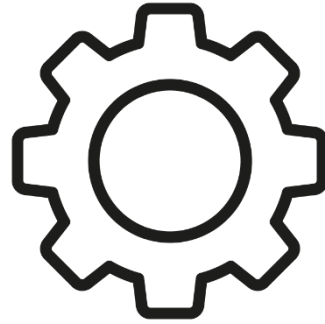
large number
of software
applications
used by
architects /
planners /
engineers

It's not feasible
for an
institution to
connect to all
relevant
software
applications



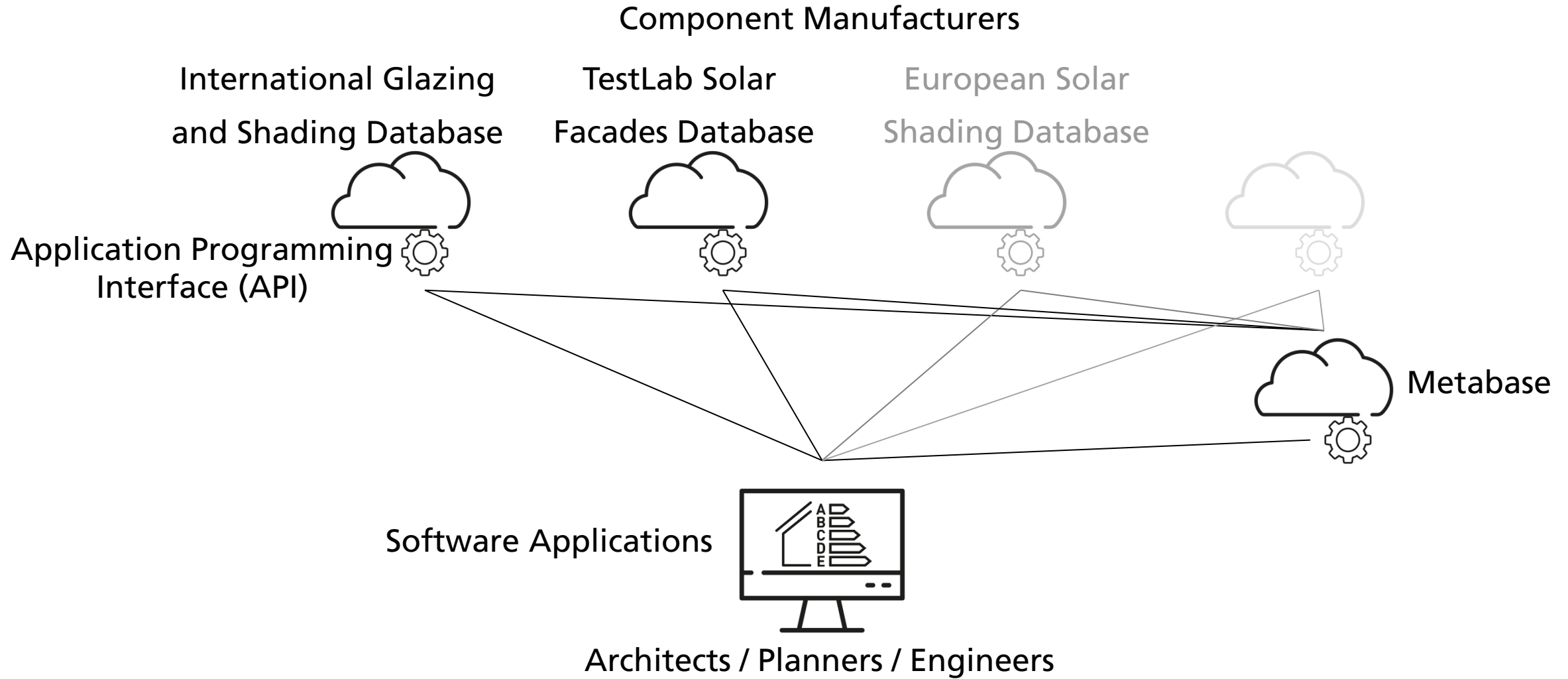
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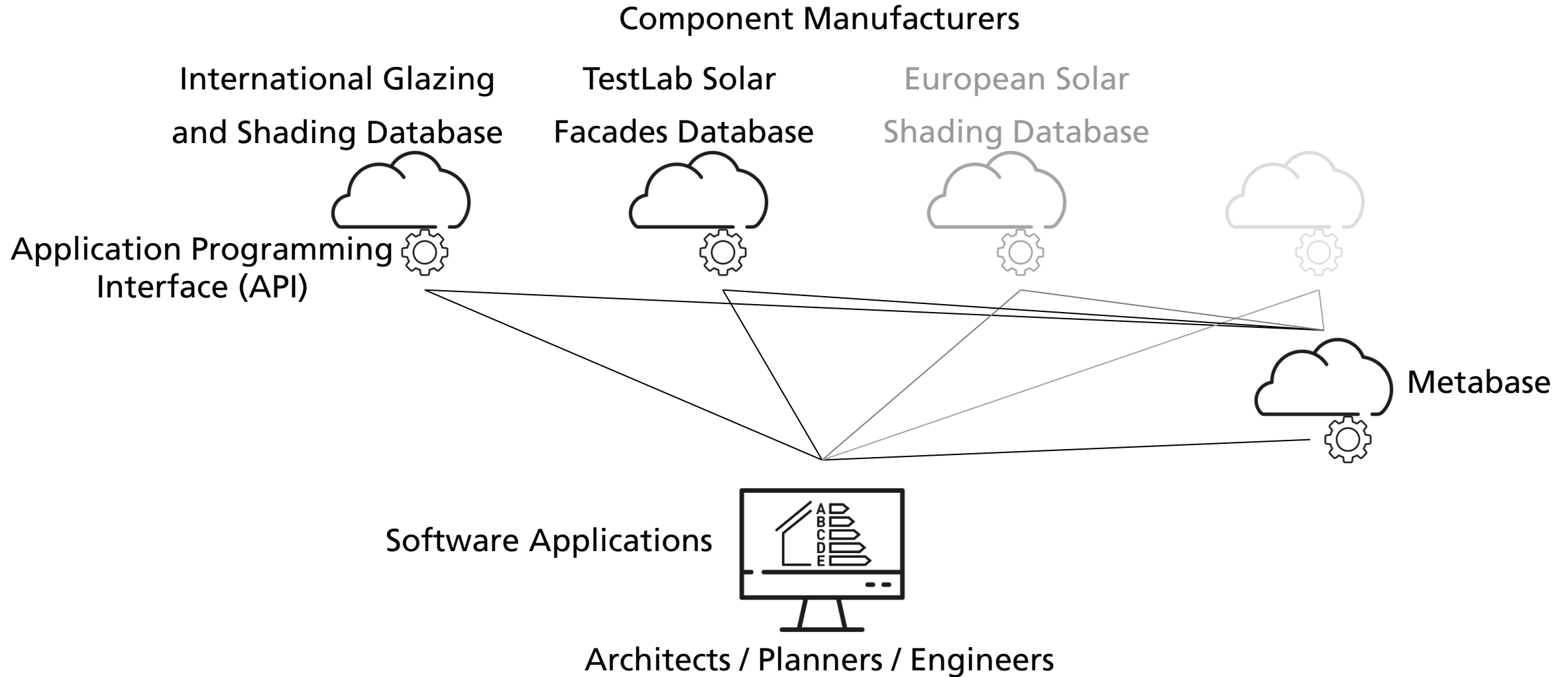


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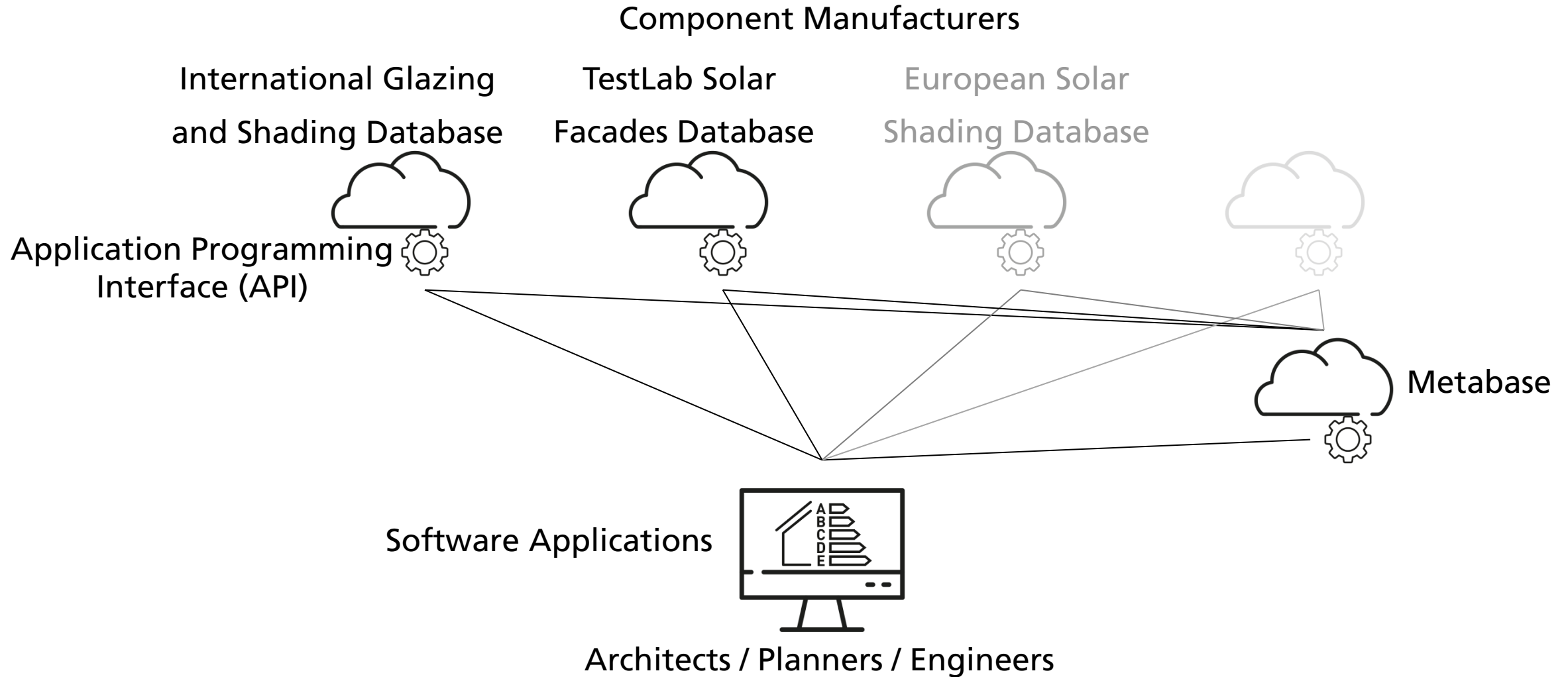
Network of Product Databases



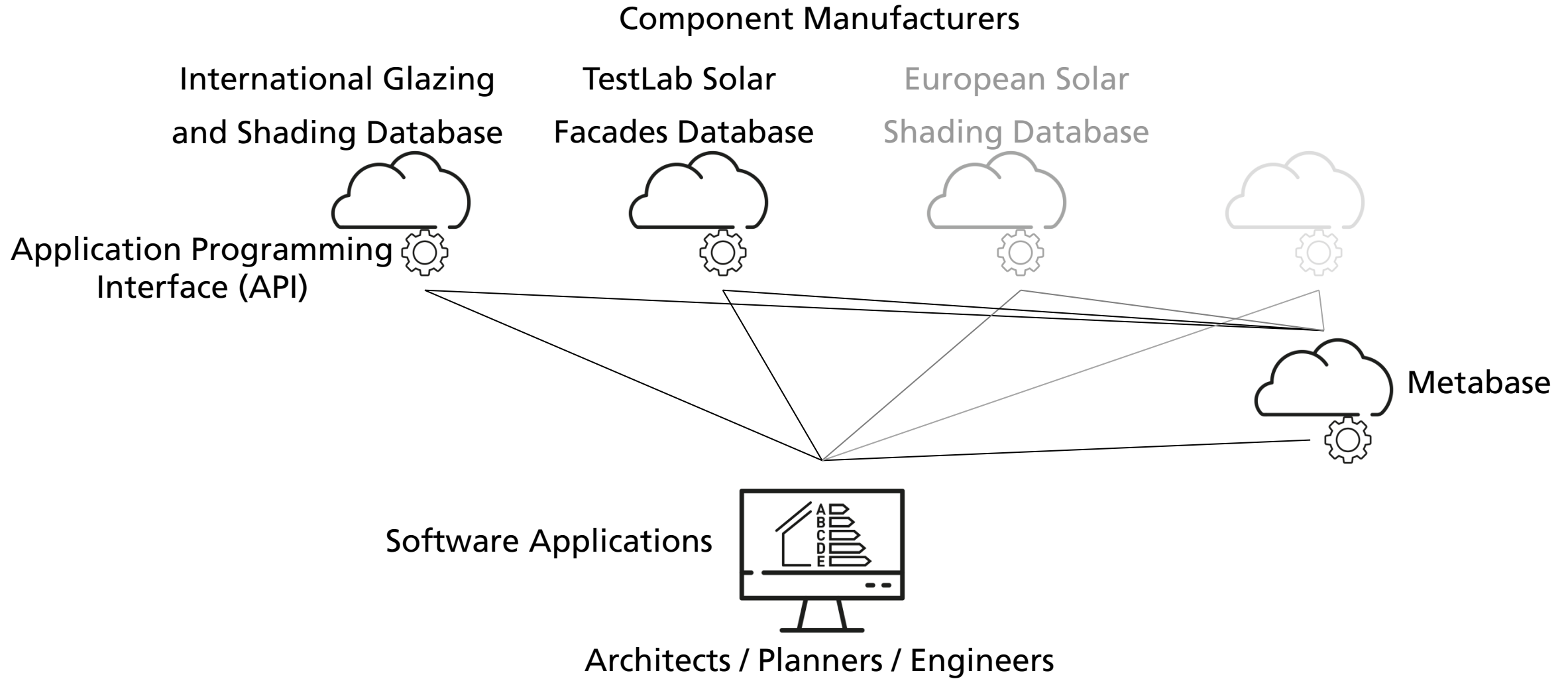
Network of Product Databases: Approvals



Network of Product Databases: Approvals, Access Rights

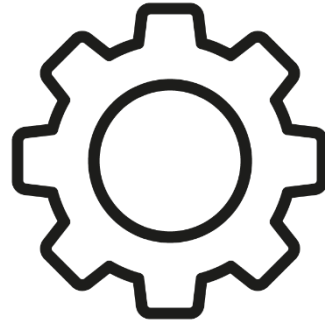


Network of Product Databases: Approvals, Access Rights, Formats



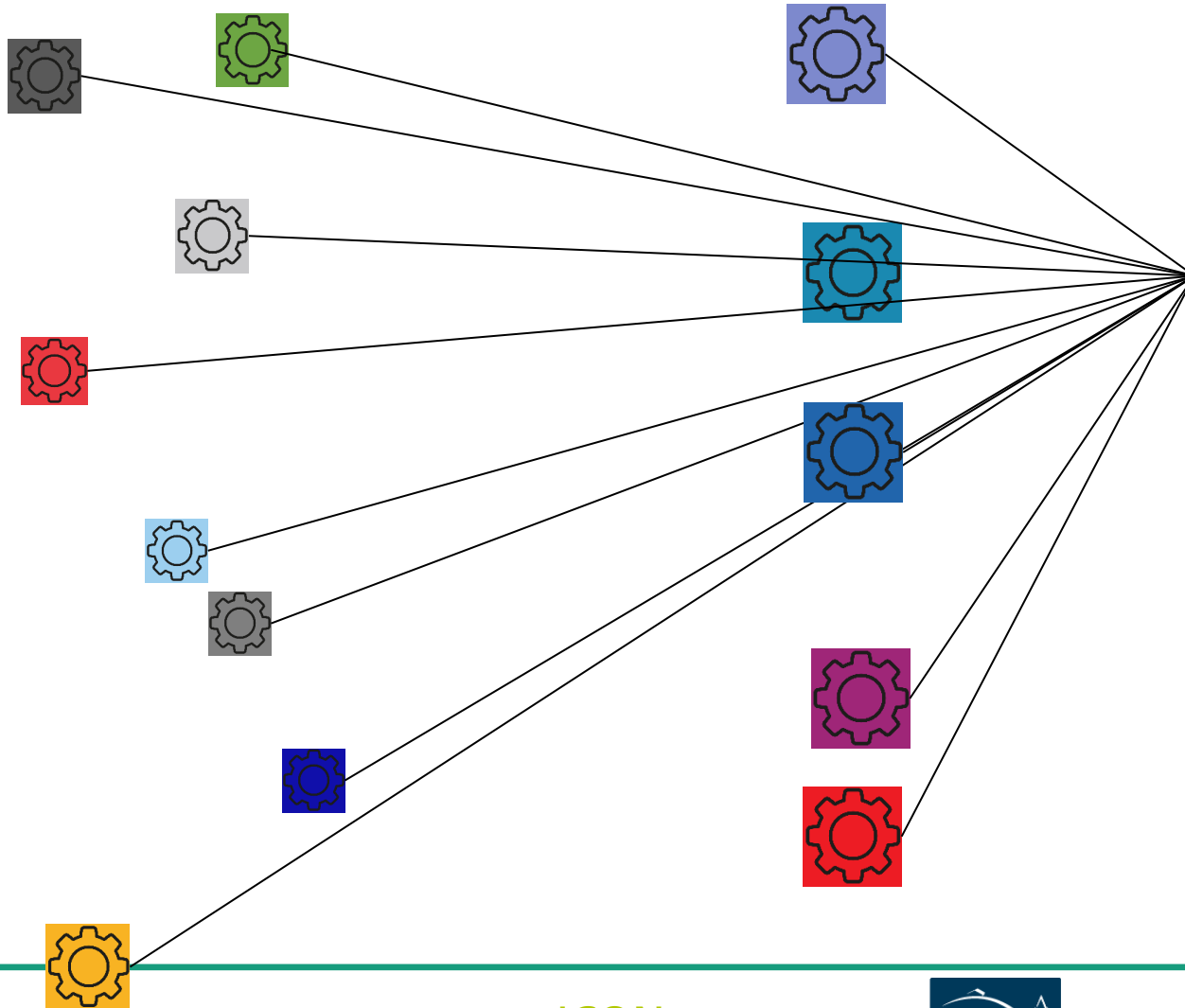
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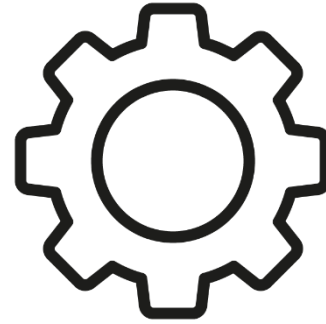
Product Data



Software Applications
It's not feasible
for a software
company to
connect to many
separate
Application
Programing
Interfaces

Product Data

large amount
of product
data from
manu-
facturers



Manufacturers,
software
companies and
planners benefit
from a common
Application
Programming
Interface.

Software Applications
large number
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applications
used by
architects /
planners /
engineers

Contributions to product data in the cloud

- Development of a general data schema for optical data sets. The data schema is optimized for automated processing and integrated into an API specification.

opticalData.json. <https://github.com/building-envelope-data/api/blob/develop/schemas/opticalData.json>

Contributions to product data in the cloud

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- Development of an API for IGSDB according to the specification.

GraphQL-API of the IGSDB. https://igsdb-icon.herokuapp.com/icon_graphql/

Contributions to product data in the cloud

- Development of a general data schema for optical data sets. The data schema is optimized for automated processing and integrated into an API specification.
- Development of an API for IGSDDB according to the specification.
- Integration into a network of product databases including a database for a laboratory.

Buildingenvelopedata.org. <https://www.buildingenvelopedata.org>

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- Development of a general data schema for optical data sets. The data schema is optimized for automated processing and integrated into an API specification.
- Development of an API for IGSDb according to the specification.
- Integration into a network of product databases including a database for a laboratory.
- Development of concepts to combine the product data with 3D building geometries (Building Information Modelling, BIM), to use approvals and to manage access rights.

Maurer, C., Wacker, S., Bueno, B., Jonsson, J.C., Lamy, H., Bush, D., Shi, M., Sprenger, W., Mitchell, R., Wilson, H.R., Curcija, D.C., Kuhn, T.E. "Optical and Calorimetric Product Data in Building Information Modelling". Proceedings of Building Simulation 2021, International Building Performance Simulation Association, Bruges, September 1-3, 2021

Contributions to product data in the cloud

- Development of a general data schema for optical data sets. The data schema is optimized for automated processing and integrated into an API specification.
- Development of an API for IGSDDB according to the specification.
- Integration into a network of product databases including a database for a laboratory.
- Development of concepts to combine the product data with 3D building geometries (Building Information Modelling, BIM), with approvals and access rights.
- Demonstration of the developments on use cases which are relevant for the industry.

Bueno B., Sepúlveda A., Maurer C., Wacker S., Wang T., Kuhn T.E., Wilson H.R.. Easy-to-Implement Simulation Strategies for Annual Glare Risk Assessments based on the European Daylighting Standard EN 17037. Proceedings of Building Simulation 2021, International Building Performance Simulation Association, Bruges, September 1-3, 2021.

Next steps

- Integrate the European Solar Shading Database (ES-SDA) into the network of product databases.
- Applying for a research project to Implement approvals and access rights.
- Assist manufacturers and associations to implement the API specification.
- Assist software companies to use the API.
- Demonstrate how planners can reach better results easier and faster, when their favorite software application uses the API.

Thank You for Your Attention!

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