



Headai Master Playbook

v 1.2

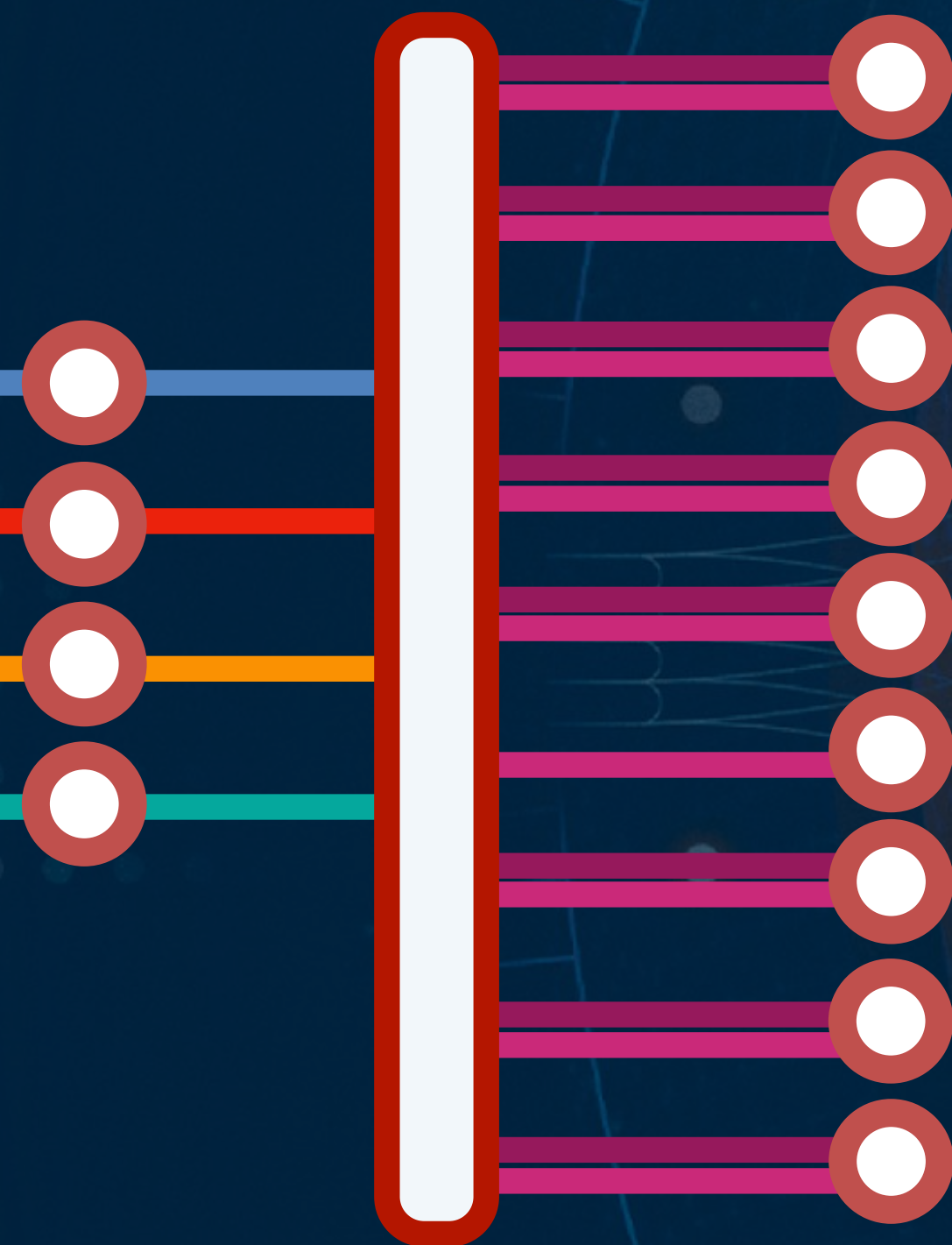




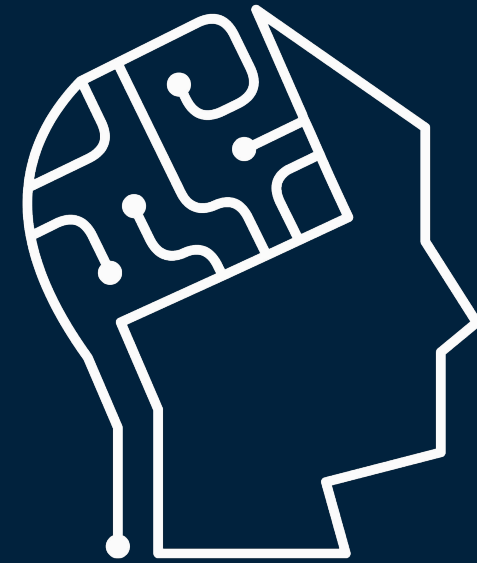
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What's New

Version 1.2. updated on 23 Sep 2022

- Added Public RDI funding to Raw Data Streams
- Added Futureproof app to Custom Apps
- Added mobile store download links to Fast Degree
- Added new visualization example (Futureproof) for compass
- Added customer case: Tech Finland, page 62
- Added TestFlight guide in Custom Apps section



Headai

Scientific background	20+ years
Founded	2015
Customers	60+
Own IP	100%

Headai is a Finnish technology company developing Graphmind AI for futureproofing companies and organizations. It enables making data meaningful to support analytics-driven decision-making.

Headai automatizes connecting non-structured and multilingual data flows from companies, education providers, and individuals to enable predictive simulations across skill-related data platforms.

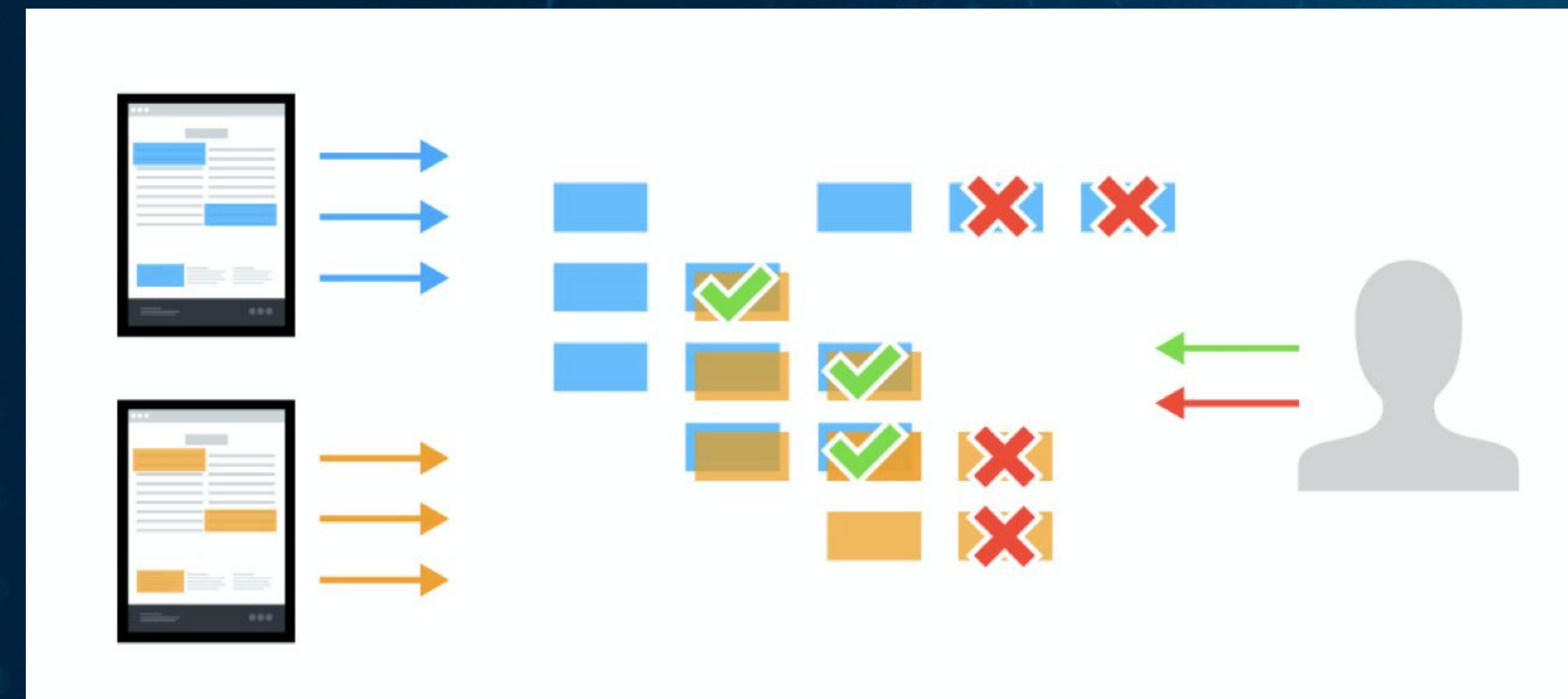
Headai colors the world of data and helps customers see the big picture in scattered data by revealing unknown connections and even explaining why they exist.



Graphmind – How the algorithms work?

Our goal is to build a machine that reads and processes text like human would do. This requires a combination of cognitive psychology, semantic computing, and machine learning. Headai approach emulates the human way to learn: According to the cognitive psychology of learning, our thinking is based on conceptual representations of our observations, experiences, and relations between these concepts. Phenomena when the structure (concepts or relationships) change is called learning.

Headai's Graphmind algorithms learn the work context via general unstructured content and teaching done by humans. In phase 1, it learns the basic semantics of relations of the working context. The learning in this phase follows the ideas of unsupervised learning. In phase 2, the process applies reinforcement learning: the user teaches it by evaluating its performance. The general content for first phase teaching can be e.g. text documents, databases, conceptual maps, graphs, etc. This means Graphmind can be taught to handle very different tasks.



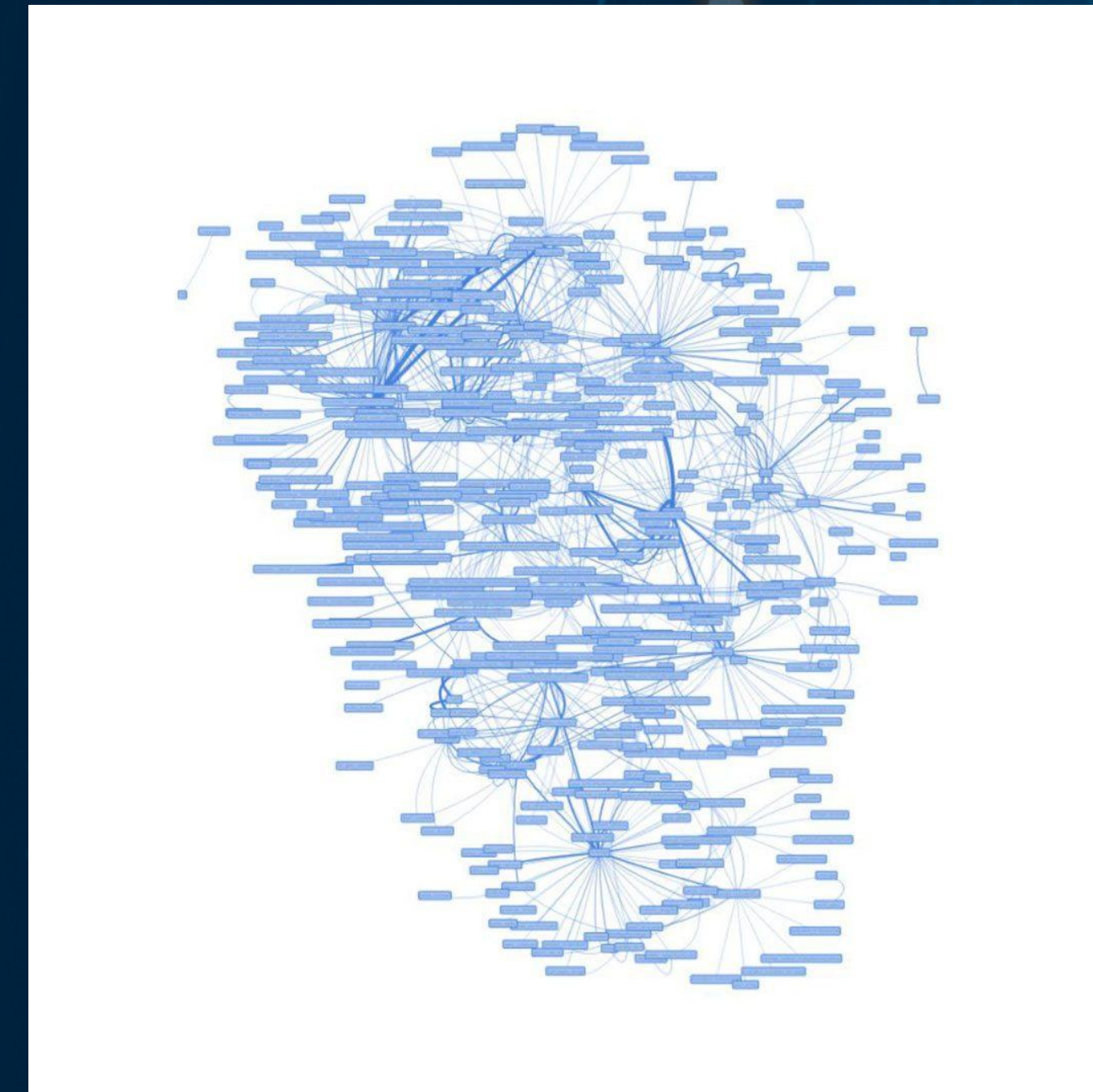


Headai Dynamic Ontology

The dynamic machine learning model for words, semantics, and meanings is based on self-organizing maps (SOM) type of unsupervised learning. It can be used to build always up-to-date and detailed language models for different situations.

It is based on terabytes of open textual data acquired from the real world: scientific articles, reports, curriculums, course descriptions, job descriptions, and job vacancies. Enables cognitively complex tasks such as reasoning with controversial and/or incomplete information (most deep learning models do not allow cognitively complex functions). Outperforms DL models in computational speed and performance relative to computational capacity.

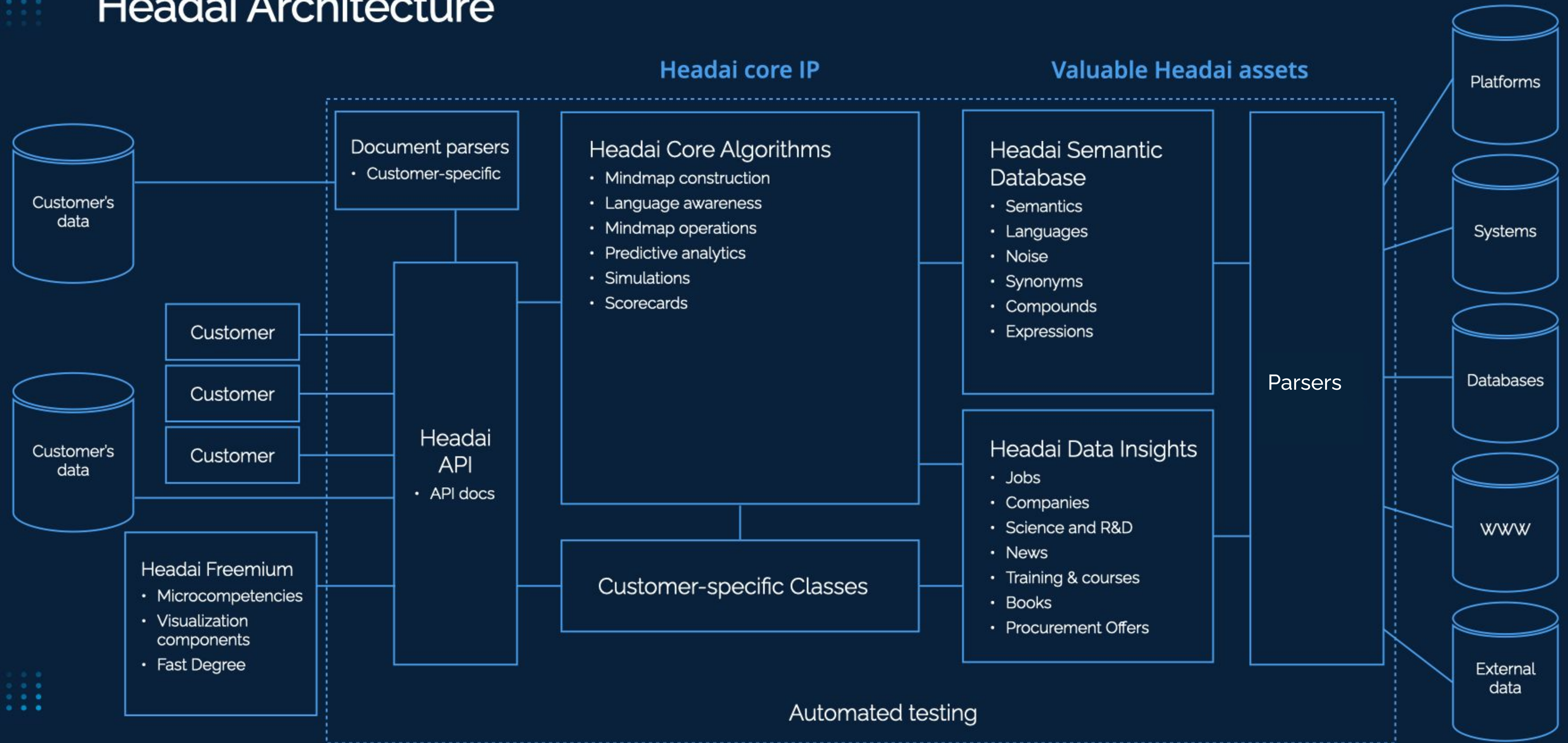
The general language model is a core component in Headai technology.



for structured & unstructured text | transparent method | explainable results | low energy consumption | high privacy & security | language agnostic | domain agnostic



Headai Architecture





Quick demo on keywording

Go to <https://headai.com/find-keywords-from-text-tool/>

- 1) Choose language (EN or FI)
- 2) Paste any text into grey area
- 3) Click Get keywords
- 4) Click any found keyword to show related keywords

Language

English

Headai is a Finnish [technology](#) company providing responsible AI for [futureproofing](#) companies. We enable making [data](#) meaningful to support [analytics](#)-driven decision-making. We [automatize](#) connecting non-structured and multilingual [data](#) flows from companies, [education](#) providers, and individuals to enable predictive [simulations](#) across skill-related [data platforms](#).

The core [technology](#) is based on [Cognitive](#) Text [Analytics](#) which enables global [interoperability](#) for textual [data](#) infrastructures and making the qualitative [factors](#) of [production](#) visible.

GET KEYWORDS

Keywords Found in the Text

- Technologies
- Technology
- Data
- Education
- Simulation
- Platform
- Cognitive
- Analytics
- Factors Of Production
- Interoperability
- Data Analytics
- Production
- Text Analytics
- Analytic
- Factor



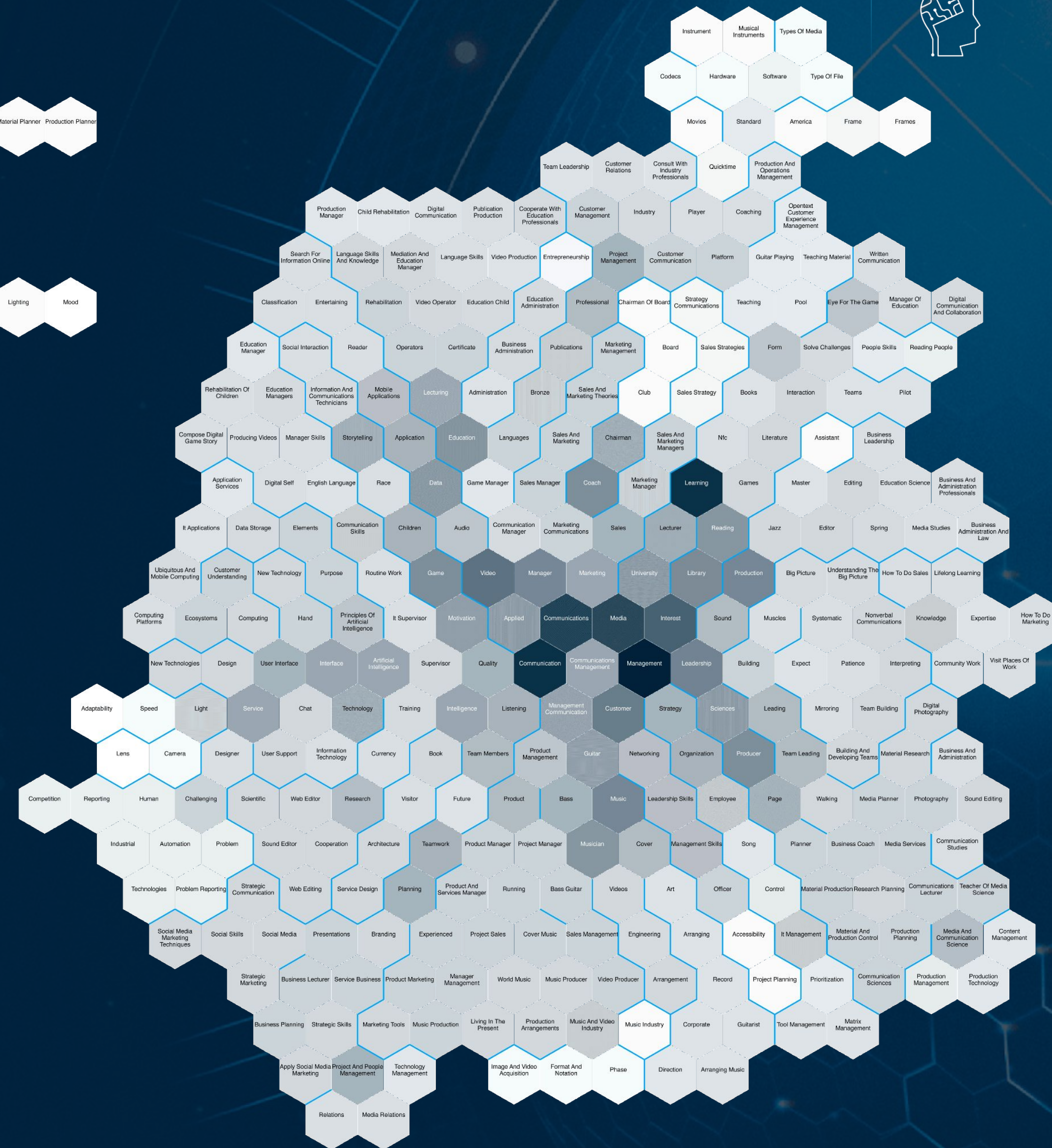
Coloring The World Of Data

We model textual data into interoperable form of graphs.

We run predictive simulations.

We enable multiple ways to visualize the results.

Our algorithms help customers see the big picture in scattered data by revealing unknown connections and even explaining why they exist.





Raw Data Streams

Headai reads a variety of open materials, e.g.:

- Job descriptions **25 M**, selected locations all over the world
- Curriculums from education institutes and online learning providers
 - **300k** course descriptions
- News & blogs **2,5 M**, sources include:
 - EN: BBC, CNN, New York Times, Leads, Medical, YLE
 - FI: YLE, MTV3, Ilta-Sanomat, Iltalehti, Open Data
- Scientific articles **6M**
 - DOAJ (Directory of Open Access Journals)
- Public RDI funding from various sources + description **20K**
- theses **150k**





Headai guiding principles



DATA OWNERSHIP

You, as customer, own your organisational data. Your employees, as individuals, own their own personal data.

Headai's job is to use the data to analyse it and visualise it only.

RESULT OWNERSHIP

You, as customer, own all the results of the analysis & visualisations, so you can use them freely.

Headai does not hold any IPR of the results of your analysis.

DATA SOURCES

Human capital data is not in HR systems. The best human capital data is a combination of company internal data, external data & personal data with consent.

Headai brings together different data sources for comprehensive analysis.

TRANSPARENT AI

You have the right to access all decision making chains in the algorithms to reveal how the result was computed.

Headai algorithms are closed to ensure full control & accountability.

DYNAMIC SKILLS ONTOLOGY

Our ontology enables the use of different 3rd party ontologies & the use of Headai's dynamic/flexible ontology.

Headai has extensive & top expertise on ontologies.





Methodology in short - Labor market & education analysis



Getting labour market skills data to understand skills demand

Data parsed by Headai from job portals around the world.

For the global skills demand analysis, Headai uses existing data that it read daily basis and intelligent methods to build a skills demand insight.



Getting curriculum skills data to understand skills offering

Headai analyzes available University curriculums around the world.



Data preparation for simulations

Clean and prepare data for calculation with Natural Language Processing.



Data analytics by Headai Graphmind

Skills demand maps

Skills statistics, TOP job titles

Curriculum skills offering maps and top skills statistics



Build comparable maps by Headai Graphming

Skills demand maps & skills offering maps → Curriculum gap analysis



Headai Concept Maps

Common Features

Mouse hover
See connected concepts

Scroll mouse
Zoom in, Zoom out

Drag
Move map

Center
Most found concept

Neighbour keywords
Stronger connections

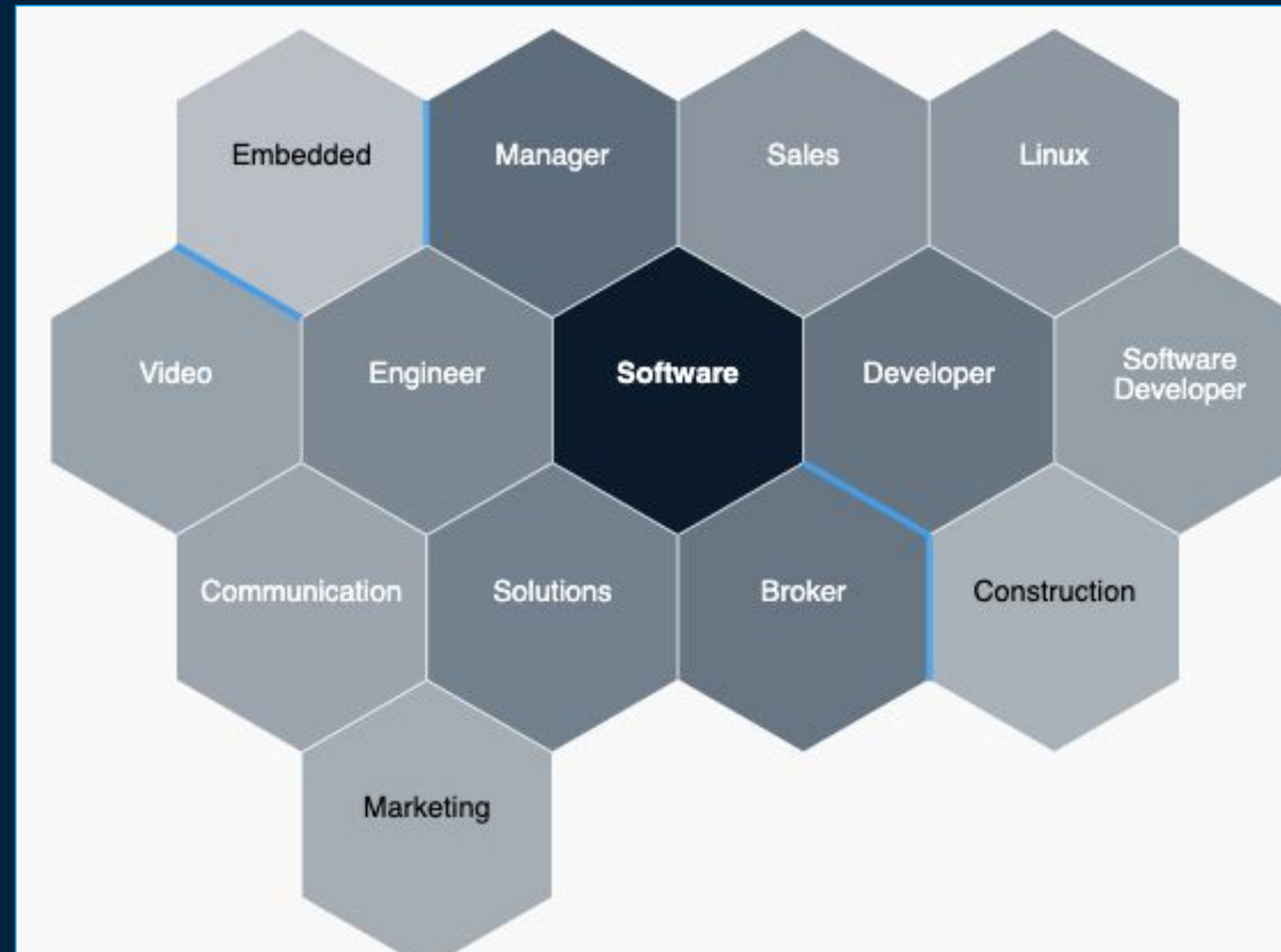
Click a keyword
Bring to center

Separator lines
Separating concepts with no connection

Arrangements
Near concepts are connected

Color shades
The darker, the more relevant

Mind maps representing concepts with relations

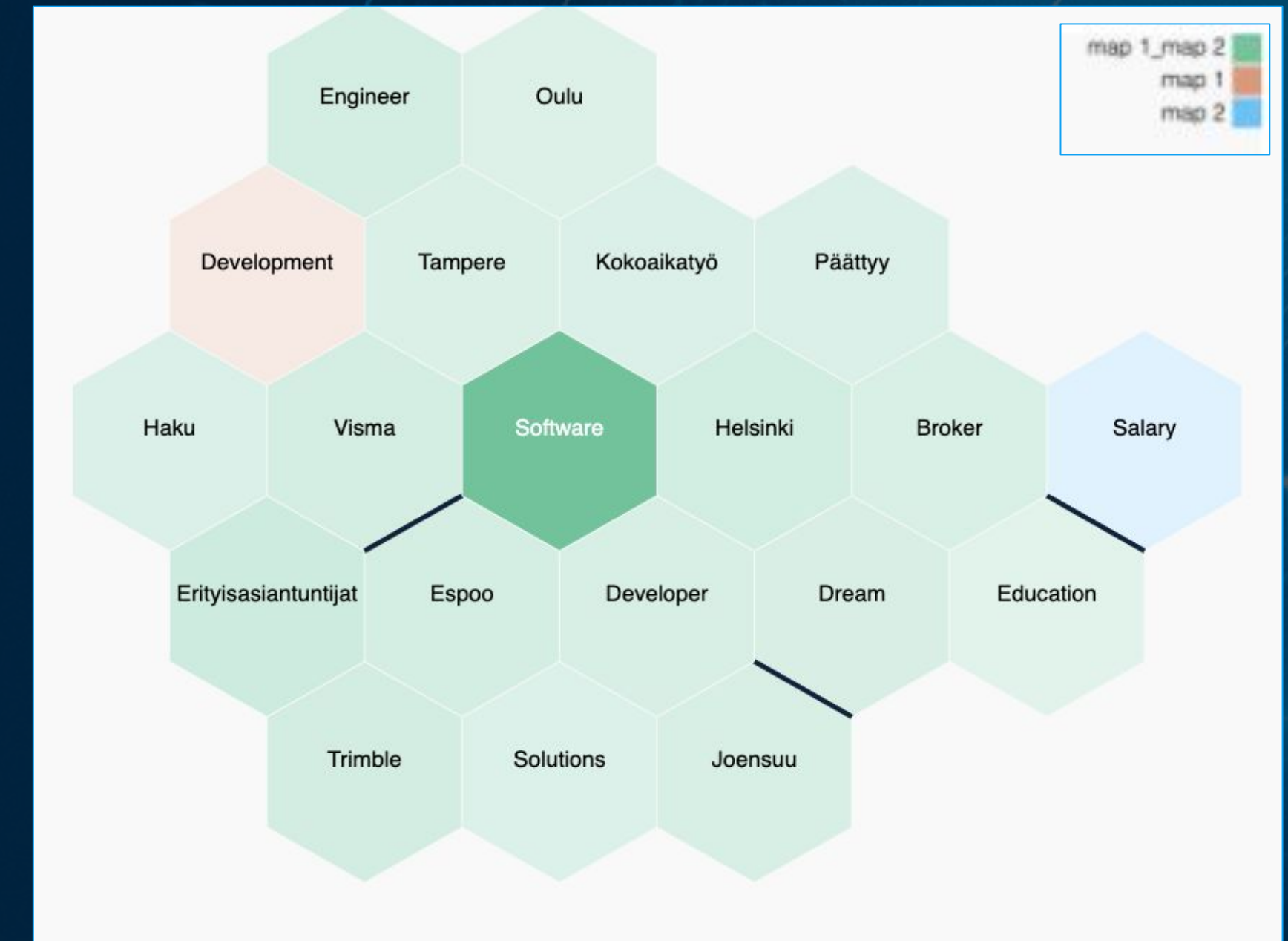


Features

- Maps showing keywords with their connected keywords
- Dark Gray; Most found concepts
- Medium Gray: More relevant concepts
- Light Gray: Less relevant concepts

[BuildKnowledgeGraph](#)

Sum maps comparing two maps



Features:

- Compares two maps to show similarity and difference
- Green- Shared/Common concepts between Maps
- Dark Green Center: Most found concept
- Blue- Concepts found from Map 1
- Pink- Concepts found from Map 2
- Legends- Help to explain maps

[SumMaps Swagger Documentation](#)



SumMap for "SDG 7" & "Energy Courses"



Overlapping area
SDG7
Energy_Courses



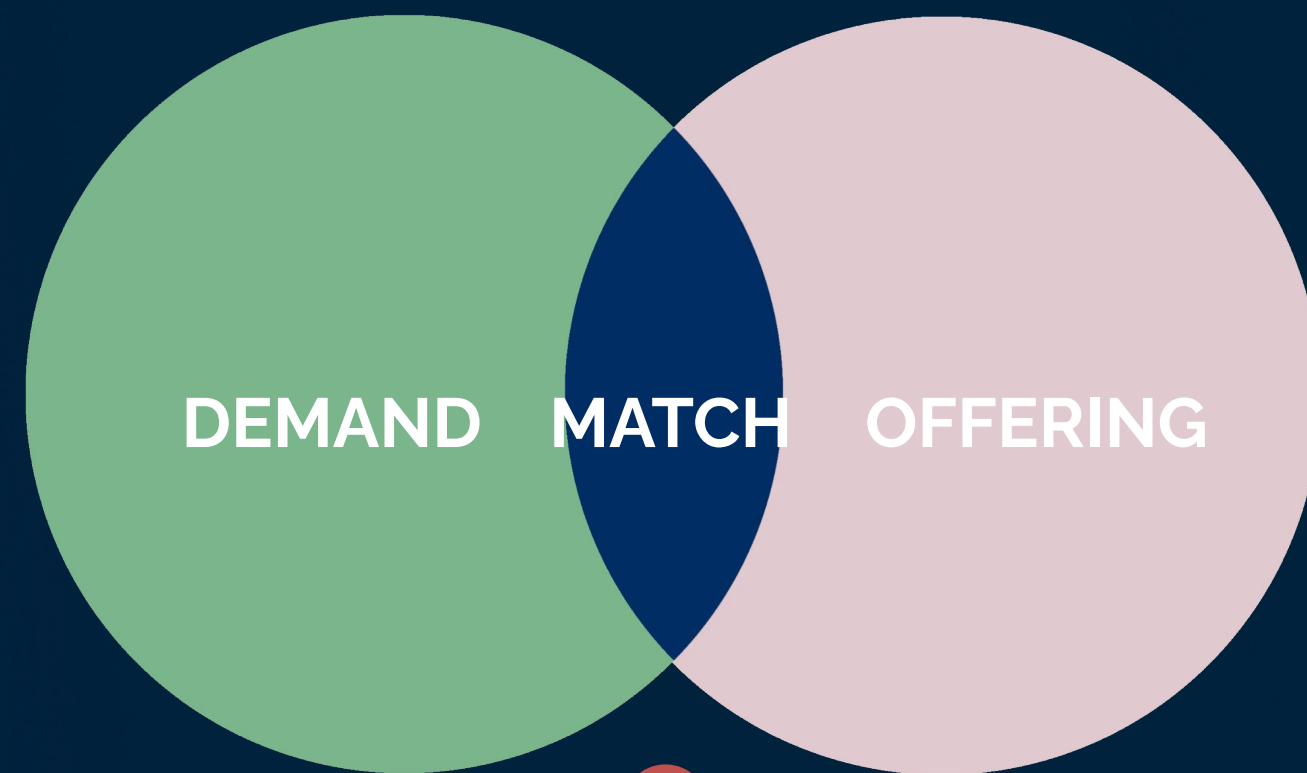
How to do analysis based on Headai Opportunity Map

The result from gap analysis in-between labor market data and curriculum data can be described as an Opportunity Map. They present skills and clusters that are not covered yet - at least based on the analysed data.

Headai Opportunity MAPs are read like correlation matrices in statistics: A professional is looking after **strong/interesting mini-clusters** that reveals something meaningful.

The Opportunity MAP enable, e.g. in the education sector :

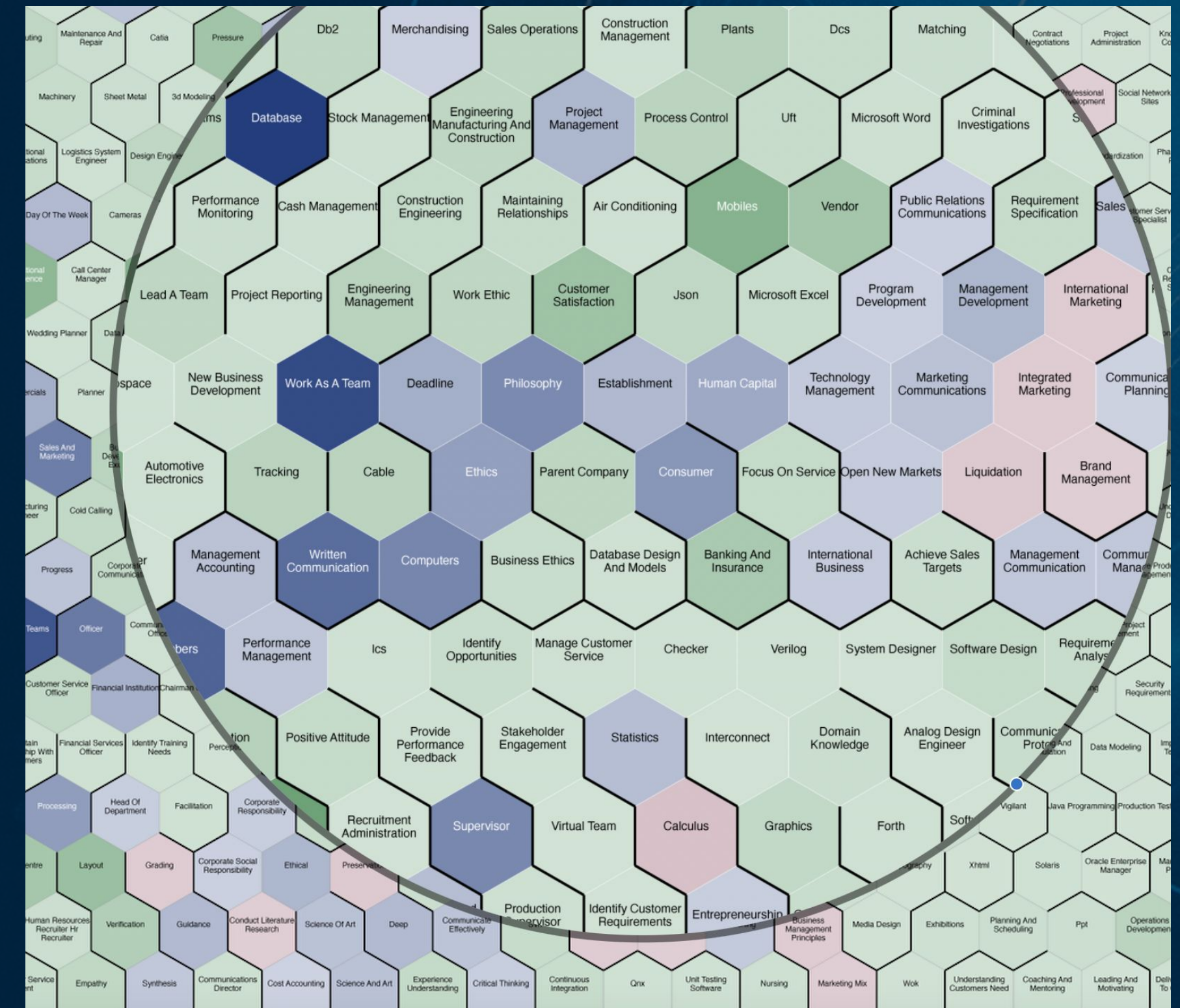
- understand what skills are in demand now and in the near future and predict changes to skills demand in general
- guide the curriculum development and update processes
- gain an understanding how to improve the course offering



Data 1
Snapshot

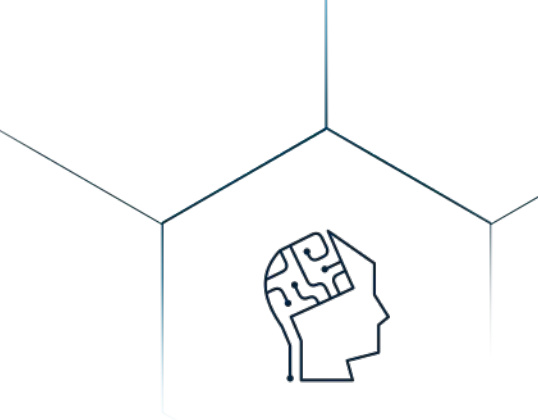
Data 2
Snapshot

Scorecard: match/gap



COMPARING SKILLS DEMAND AND OFFERING
– FINDING MATCHES AND MISMATCHES

Darker = the count is bigger



Headai collaboration with World Bank

Published on Education for Global Development

Jobs, Skills, and the Potential of AI in Kenya

SAORI IMAIZUMI | JANUARY 06, 2020

This page in: English



A partnership with Headai, a Finnish company, applied an AI-enabled labor market assessment tool in Kenya to analyze labor market demand and skills gaps.

One of the advantages of artificial intelligence (AI) is that it can help us carry out tasks faster and with fewer errors than humans. I wanted to test this on analyzing labor market demand and skills gaps. So, earlier this year, I partnered with [Headai](#), a Finnish company, to apply an AI-enabled labor market assessment tool in Kenya. We used the tool to analyze: (a) online job advertisements from select online job portals in Kenya and (b) computer science curricula from the University of Nairobi and Moi University to identify the gaps between what the labor market is looking for and what the university curriculum is providing.



Kenyan software & ICT industry skills demand and educational offering in Kenyan universities

NLP & Big Data based computational analysis

Read more:

[World Bank Blog](#)

[Headai Blog](#)



Skillsdata analysis for Philippines Digitalization strategy work



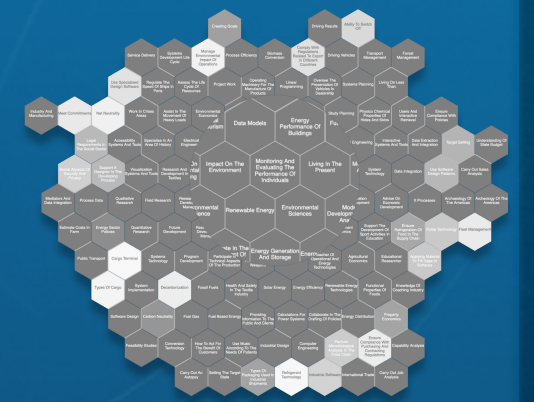
Key Challenges to Deepening Skills for the Future

There are considerable gaps in digital skills and other skills among students, although they vary by field of study. An analysis using an algorithm that matches the forecasted demand for skills, along with predictive analytics using demand data from job sites, reveals a worrying reality (World Bank & HeadAi, 2022). The analysis identified a large number of unique missing skills (skills gaps). Missing digital skills include knowledge of Windows, search engine optimization, social media marketing, blogging, and data analysis. Other missing skills include soft skills such as team leadership, problem solving, coaching, and public speaking, in addition to hard and technical skills such as data analysis, strategic planning, and business strategy.

Read Philippines Economic Update June 2022 by World Bank

[Philippines Economic Update](#)

Headai for World Bank: LABOR MARKET & CURRICULUM ANALYSIS with their GAP ANALYSIS



Insight on how does labour market demand relates to education offering in Philippines and globally



- 10 universities, 56 programs
- 3 job portals, 45k job ads



Deployed in one month



TOP job titles and skills analyzed and compared to curriculum offering.

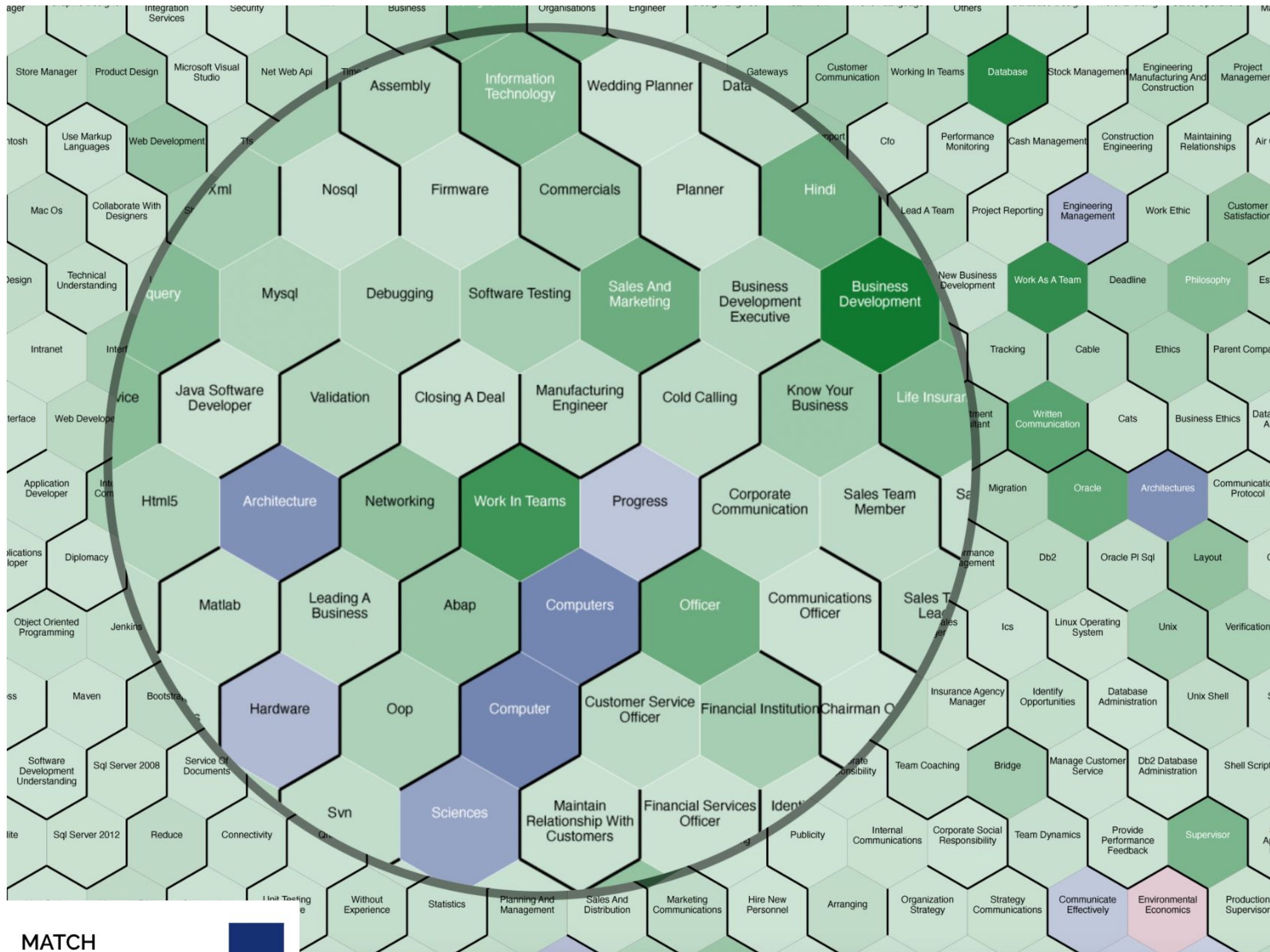


Up-to-date programs, data-driven curriculum and program development future-ready graduates.



Futureproofing education in a rapidly changing world





MATCH

ONLY EDUCATION

ONLY LABOR MARKET DEMAND



Headai analysis

The opportunity MAP for **X University IT department** Based on The Philippines job data

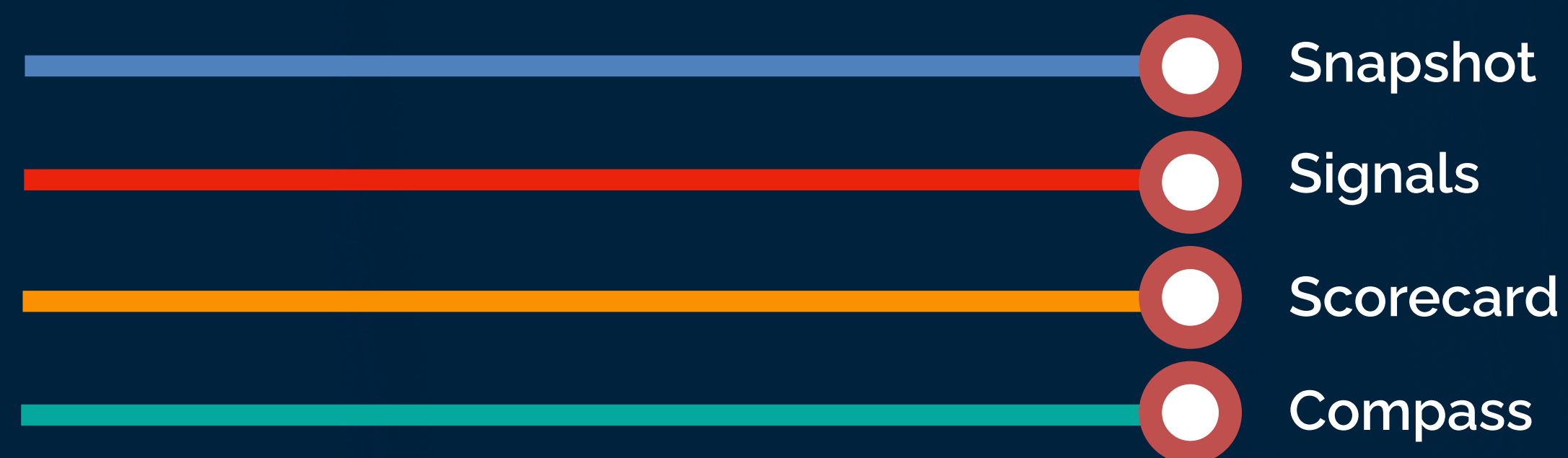
In the Philippines there is a strong demand for different programming languages, frameworks and database management systems, but almost no supply on education side. Green areas around blue areas represent the skills that are closely related to the offering, but are not offered. Here we can see that programming languages such as Java and SQL, practices like OOP, and database management systems Mysql, Nosql are the skills strongly connected with high labour market demand, hence provide the biggest opportunity. Ability to work in teams, business development as well as sales&marketing skills linked to information technology are also sought in potential candidates.



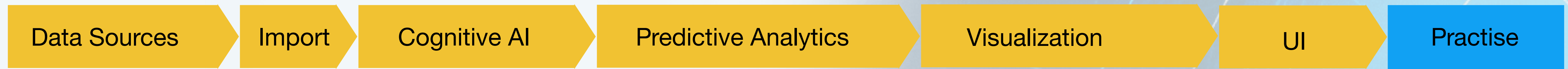
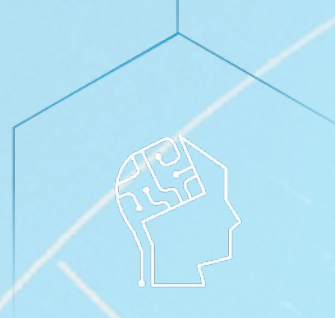
The product metro map

Headai brings a new level for business intelligence by automating qualitative analysis. By making data interoperable, we can build new kinds of soft KPIs to monitor human capital, strategic goals, and e.g. sustainability actions. This eventually cumulates into better strategic decision-making that can help companies to stay futureproof.

To offer an understandable navigation to our tools, we designed a metro map to four groups based on the customer problem they are solving. This is also to make it more understandable what can be done with our AI methods.



Headai Graphmind Data Tracks

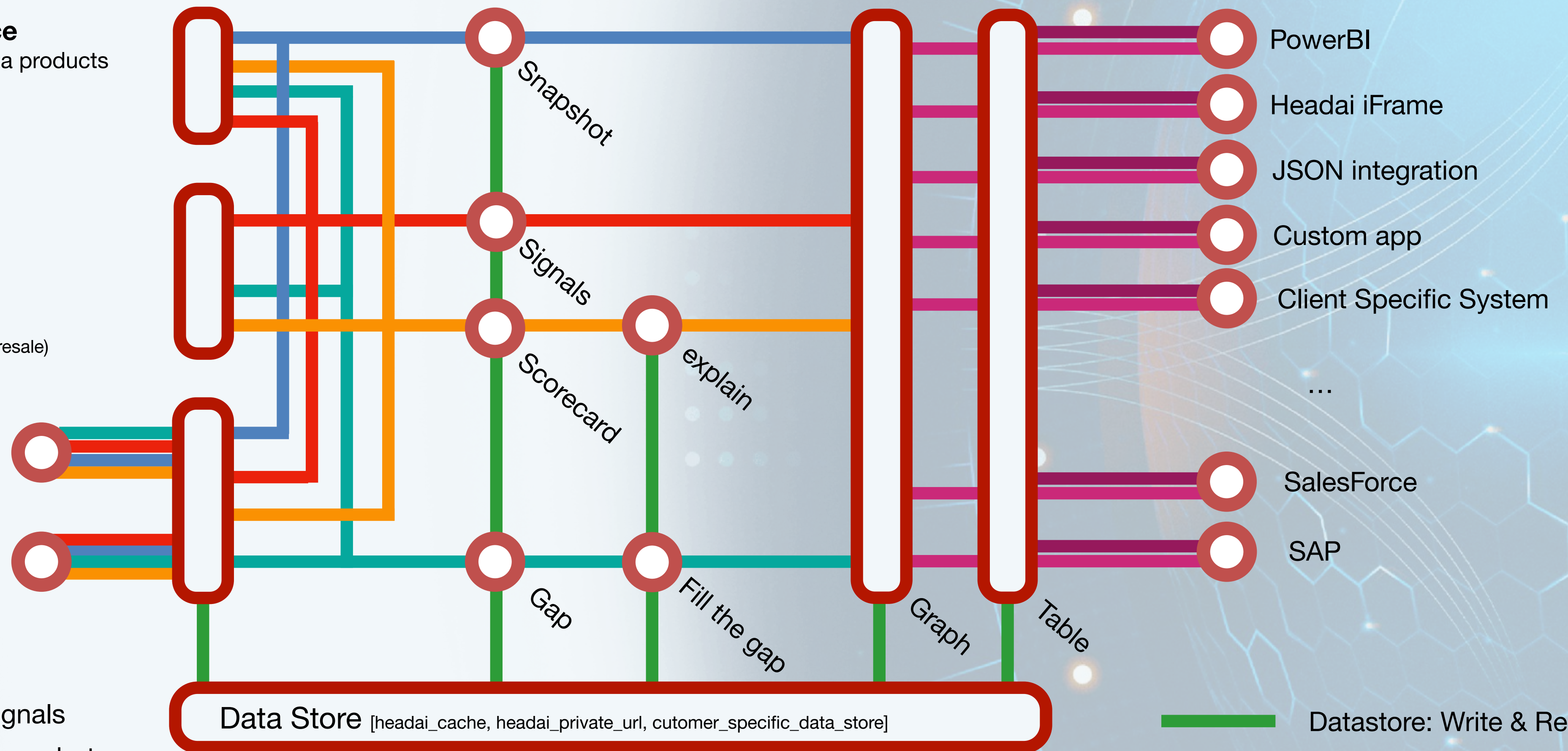


Competitive Intelligence
 Thousands of readymade data products
 * 300eur/month/stream (no resale)
 * 5000eur/mont/unit (no resale)

Scorecard Data Sets
 Validated data products
 UN SDG & TOP400 SDG
 EU Green Deal
 UN ESG & WEF ESG
 TOP Curriculums
 * 1000eur/month/unit/scorecard (no resale)

Text to Graph
 (customer data)
 * 1000eur/month/unit

Compass
 (customer data)
 * 2000eur/month/unit



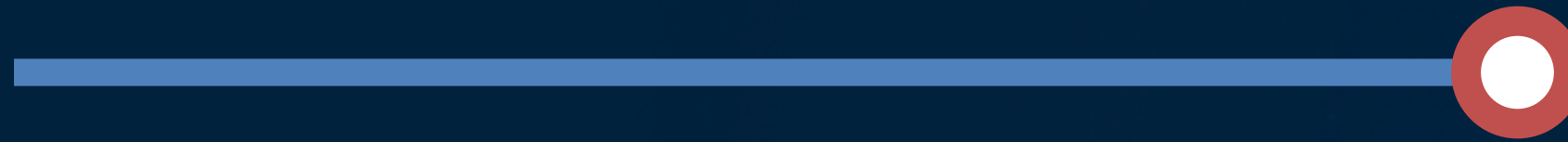
- Signals
- Snapshot
- Scorecard
- Compass

- Datastore: Write & Read
- Visualisation to UI



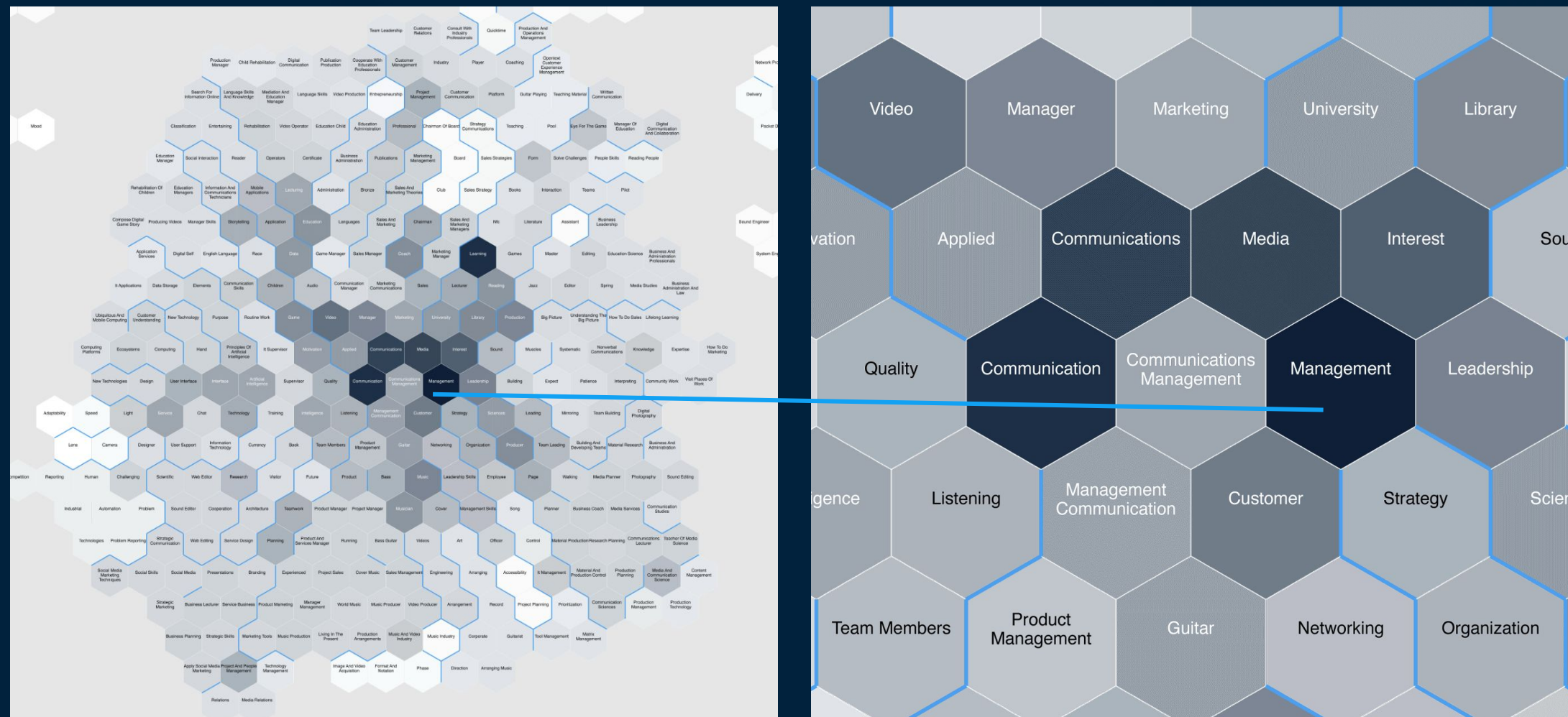


Snapshot



Snapshot is like a basic unit with which you can start working with. It gives an understanding of a situation – the focus is on the relationships. It can be based on any textual entity and visualized as a table or as a concept map. It reveals the key concepts and the context. The maps (graphs) are machine-readable JSON files (with the information of the nodes and edges) and can be integrated and visualized in your existing business intelligence tools.

Skill map of a person





Scorecard



SCORECARD – focus on performance. Is built by comparing to maps. Enables building soft KPIs based on qualitative data. An example is to build a scorecard to meter the company's actions against UN's Sustainable Development Goals.



Decarbonization in science: change 2016 - 2020

DECARBONIZATION BIG PICTURE

Conceptualizing decarbonization, main concepts in 2020



6000 research articles



1 day to deploy



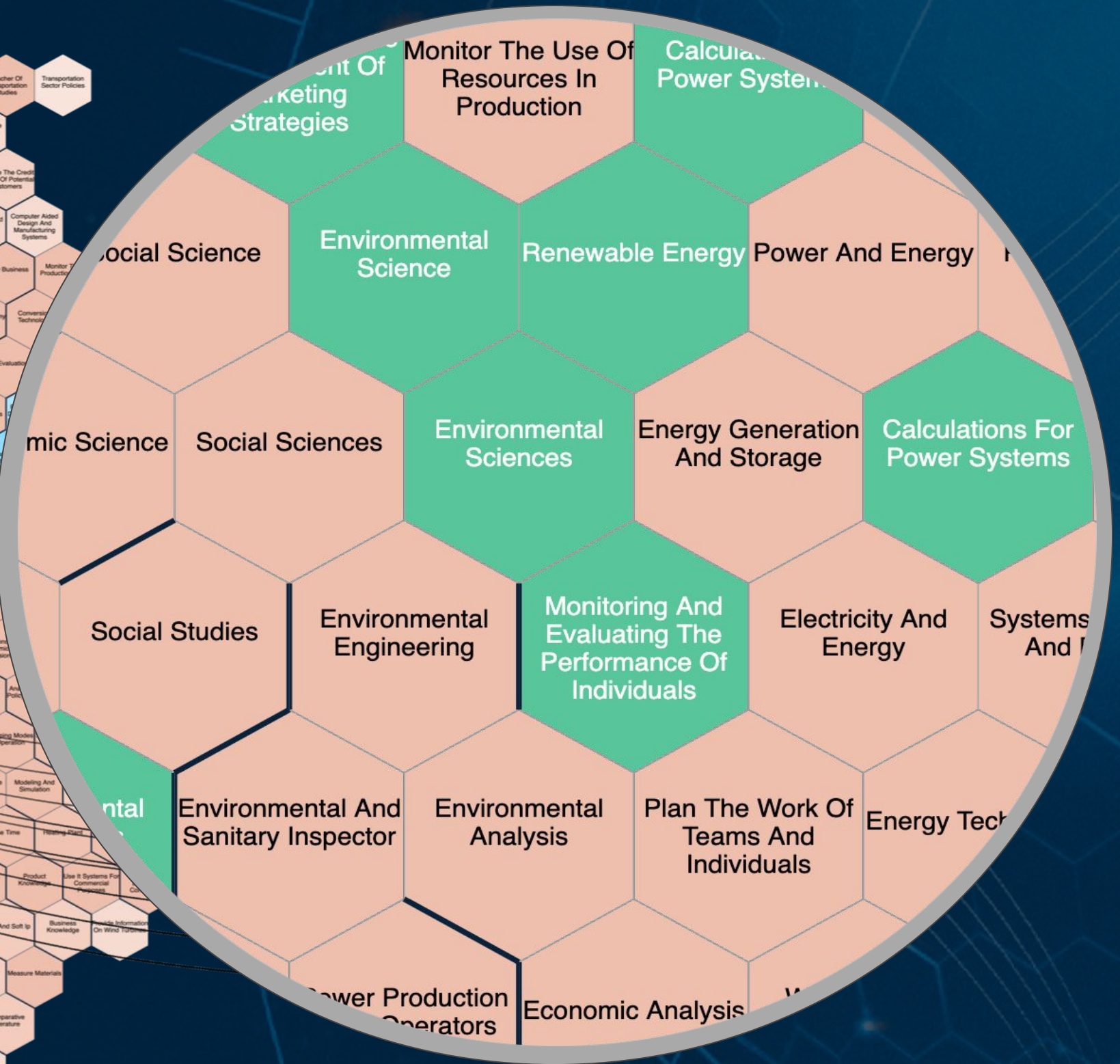
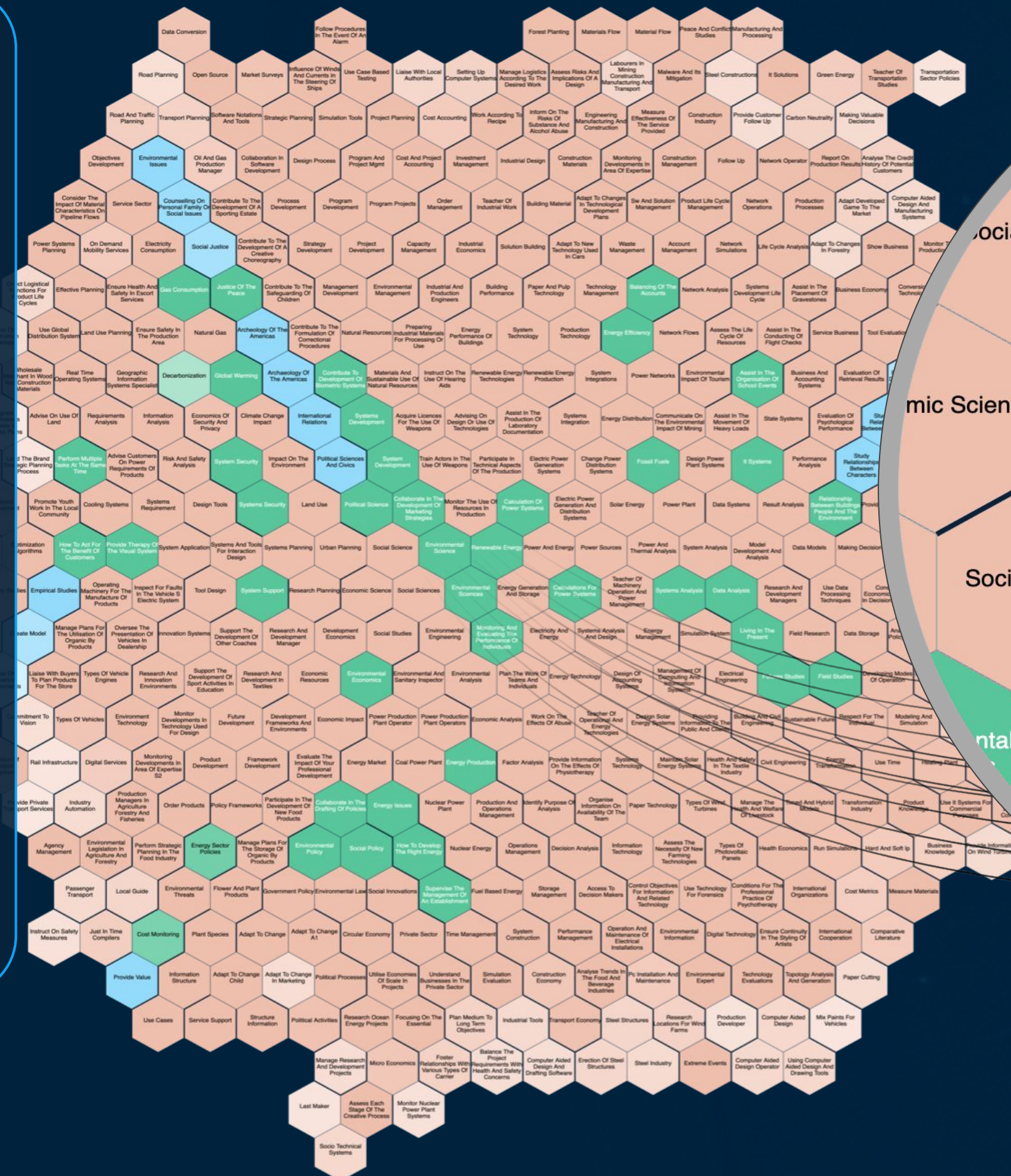
Key concepts and topics identified for understanding the research themes in decarbonisation.



Be a thought leader in decarbonisation.



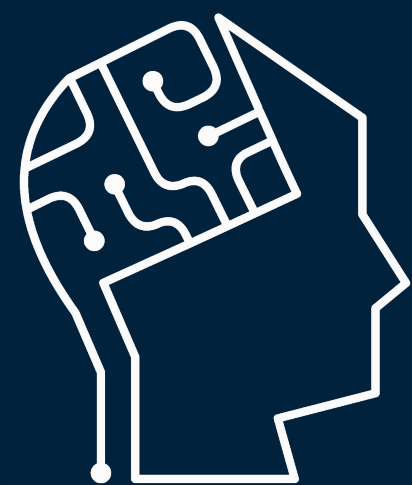
Green transition is a global challenge at 100M+ companies around the world.



Scorecard: before/after



Headai SDG Mindset



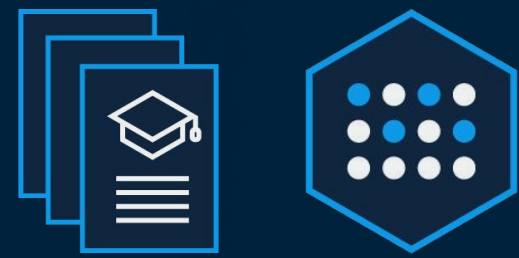
Headai



We support the sustainable development goals



Headai SDG mindset



Education ↔ UN SDG Goals comparison

Making **SDG Mindset** visible



Intelligent analytics to support decision-making

Conclusions about activity reporting & communicating goals. Thoughts, ideas, narrative, feelings. No performance evaluation.

“When the mindset is found, actions will follow”



UN Sustainable Development Goals



The sustainable development work of all the countries of the world is guided by the global program for sustainable development agreed at the UN in 2015. This is called **Agenda2030**.

It contains 17 goals that countries should achieve together by 2030.



Example: Impact assessment of R&D activities of all Universities of Applied Sciences in Finland

Publications ⇔ UN goal 9 (sustainable work, innovations & infrastructure)

Publications analyzed from a database containing RDI data and scientific articles.

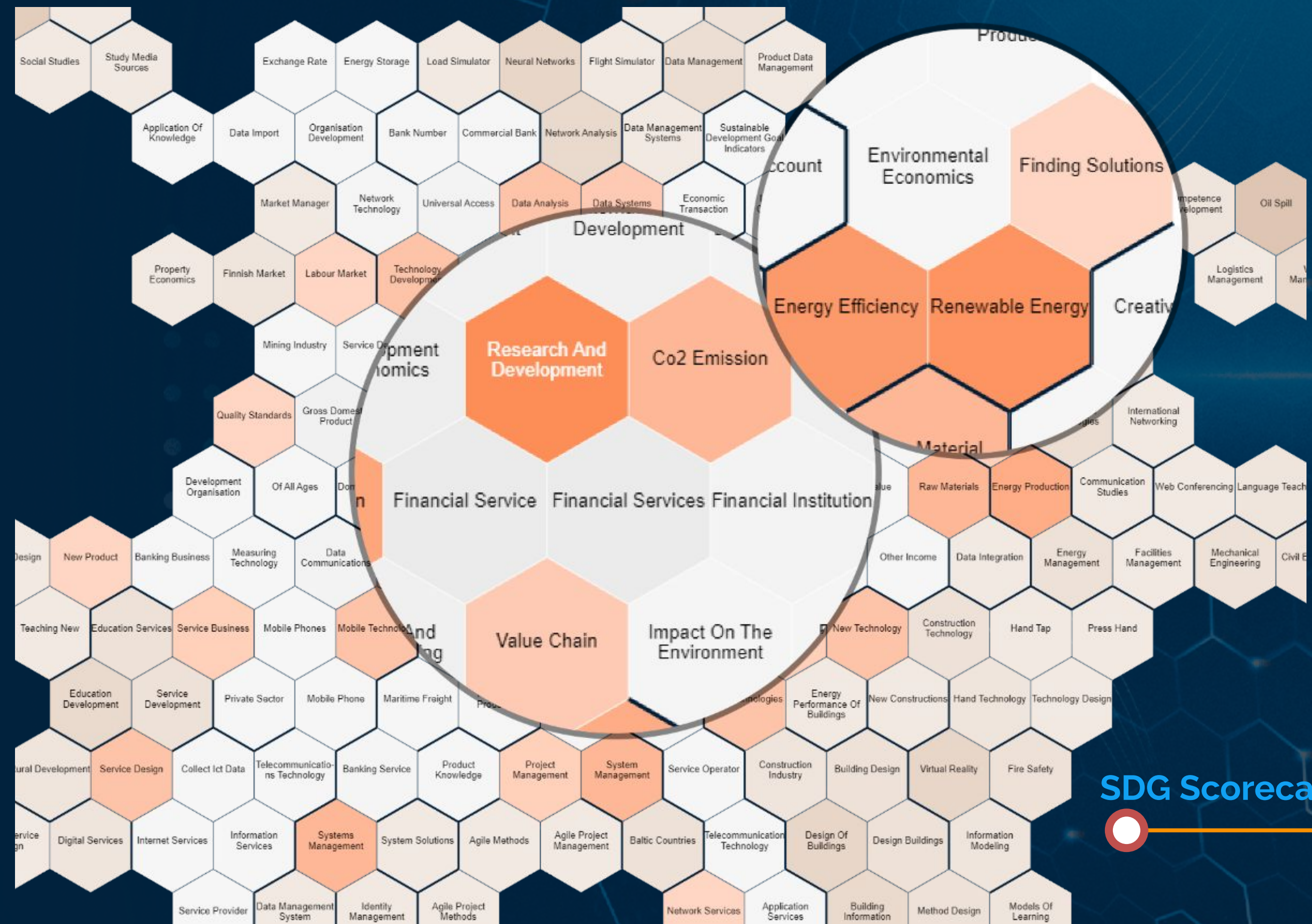
Reduction of emissions, energy efficiency and renewable energy are associated with economic terms in SDG 9

However, these do not appear in UAS's publications → opportunities for multidisciplinary R&D activities?

Found in both datasets (MATCH)

Found only in RDI data

Found only in SDG-data



SDG Scorecard





SDG scorecard -service

For analyzing curricula and sustainable development goals.

- Enables comparison of curriculum data with SDG targets
- Qualitative analysis for the data-driven development of education
- Easy start with a one-time (snapshot) data drive
- Analysis is possible at the whole school level, at the Unit level and at the curriculum level, in Finnish and English.
- The results can be viewed in the service for a year.
- Based on the Headai SDG Mindset product.

Service made by Eduix and Headai

<https://sdg.eduplan.fi/>



Would you like to know to what extent your Degree Programme addresses the UN Sustainable Development Goals (SDG)?

Our AI-based SDG scorecard tool, developed by Eduix and Headai, analyses your curricula and provides critical indicators to monitor how much your Programme addresses the SDGs. The tool gives you a qualitative and quantitative understanding through visual graphs about the current situation at the curriculum and faculty level. Based on the results, you can select curriculum areas for further development and direct the Degree Programme to scaffold competencies that are important for a sustainable future.

Are you interested? Contact us and we will arrange a presentation for you.

eduix



Headai

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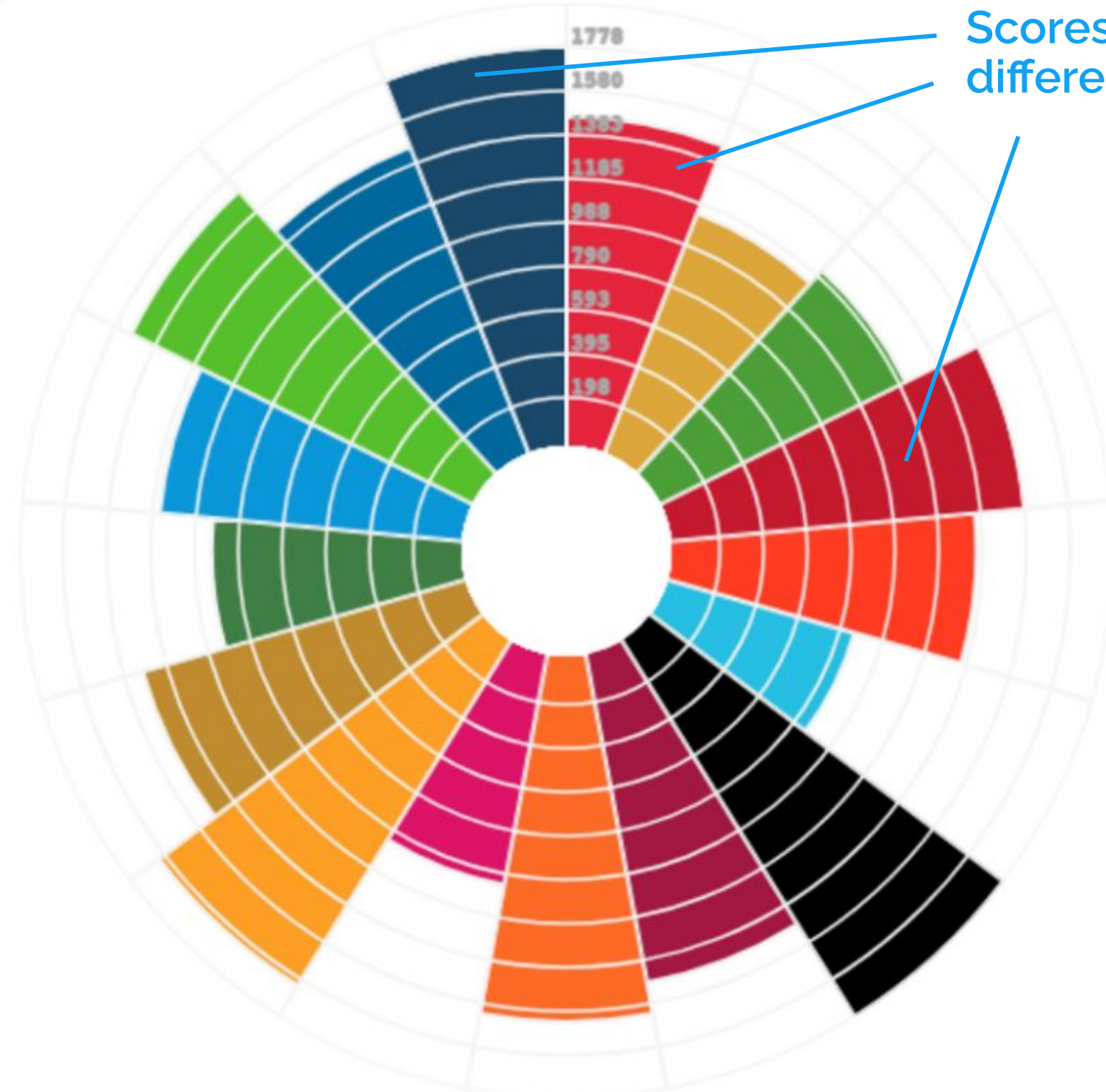
Jessica Nielsen
jessica.nielsen@headai.com

Login

Degree Programme 1

?

- +



Scores for different goals



1975

SDG 7 Score

- ★ Renewable energy
- ★ Infrastructure development
- ★ Electricity consumption
- ★ Policy
- ★ Electricity and energy
- ★ Renewable energy technologies
- Technologies
- Electricity
- Energy
- Energy technology
- Industrial
- Networks
- Quality
- Technology
- Programme
- Sustainable
- Energy efficiency
- Transportation
- Education
- Developments
- Investments
- Production
- Clean energy
- Energy consumption
- Assessment
- Industry
- Network
- Renewable
- System
- International cooperation
- Renewable energy production
- Research and development
- Technology development
- Sustainable development goal
- Sustainable development goals
- Natural gas
- Wind power
- Solar power
- Solar energy
- Power and energy
- Development economics
- Design questionnaires
- Community health
- Health education
- Gender equality issues
- Systems analysis
- System analysis
- International organizations
- Program development
- Types of fuels

1 EI KÖYHYTTÄ

2 EI NÄLKÄÄ

3 TERVEYTTÄ JA HYVINVOINTIA

4 HYVÄ KOULUTUS

5 SUKUPUOLTEN TASA-ARVO



Case example: Metropolia University of Applied Sciences

FUTUREPROOFING UNIVERSITY

Curriculum analysis and comparison with SDG goals.



All course descriptions / curriculums +1000 units of definitions for the 17 SDG goals



2 weeks until deployed



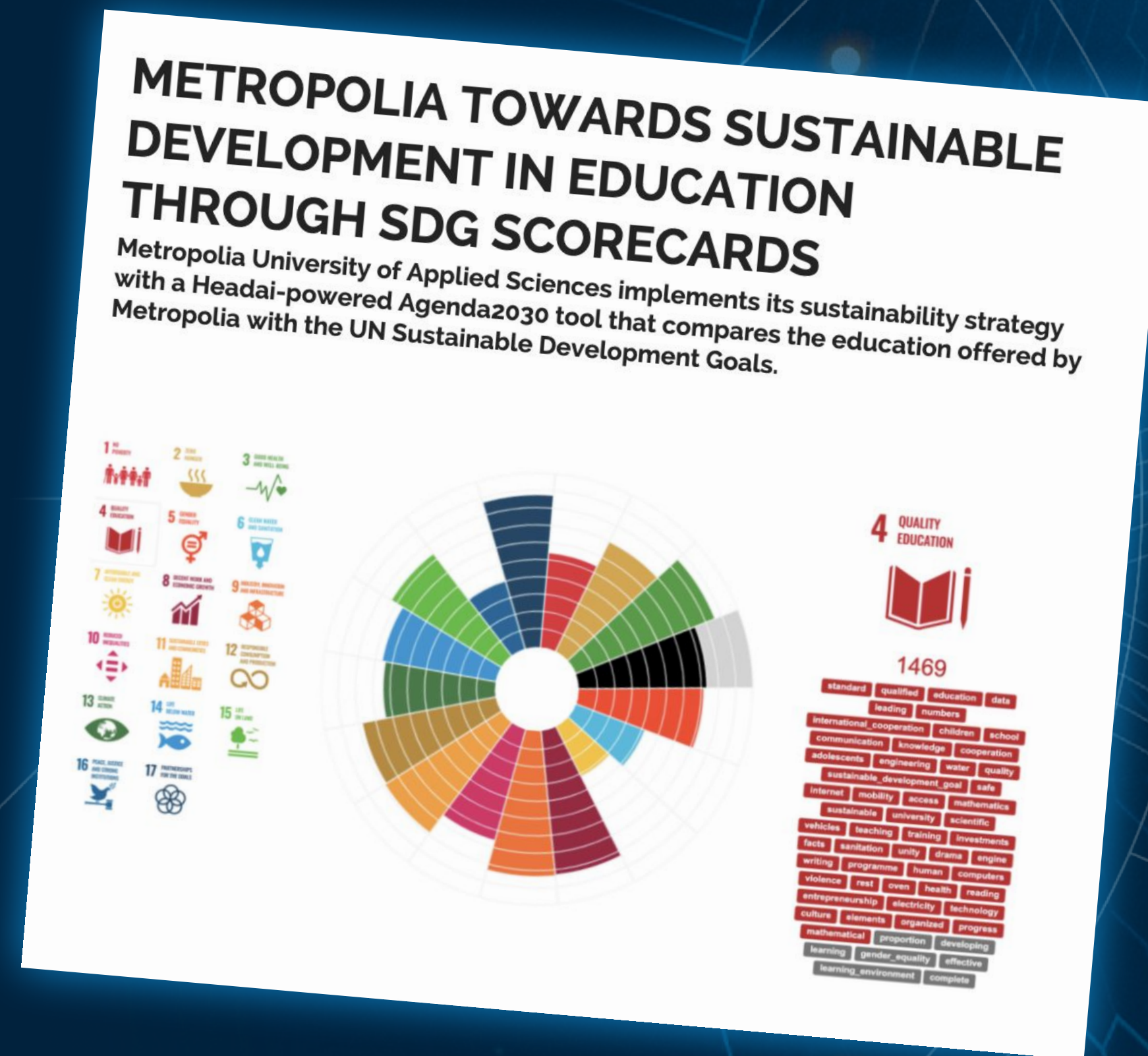
Based on gap analysis, design of new courses & restructure the offering



Up-to-date programs, future-ready graduates & faster job placements.



SDG alignment at the core of universities and organizations strategy.



SDG Scorecard

[READ THE CUSTOMER STORY](#)

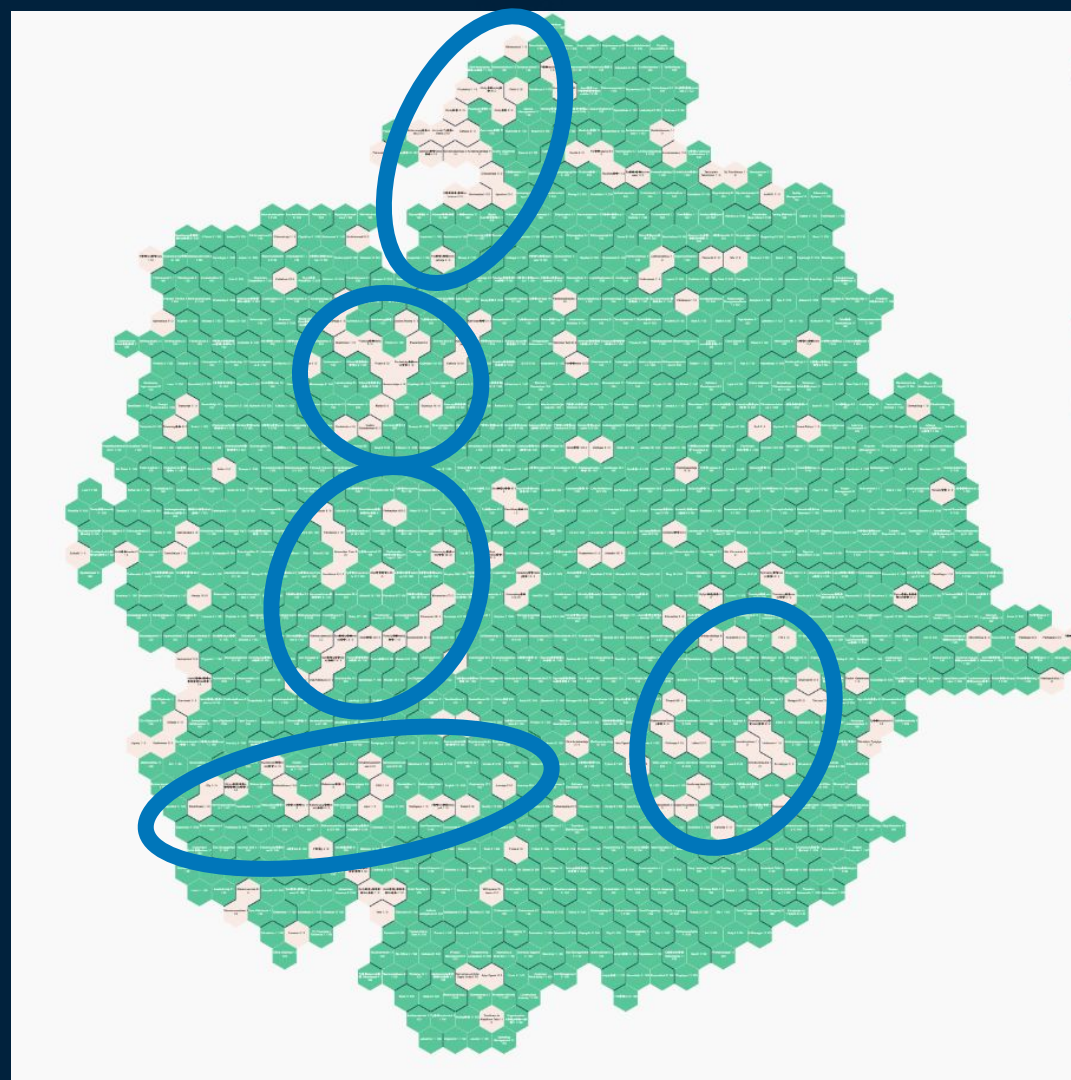


Compass

COMPASS – focus on development. Enables skills gap analysis for understanding what type of competencies are missing. Can be done to guide individuals, team, units, companies or organizations.

Below, some examples of visualizing the skill gaps and suggestions to fill them.

Areal skill demand and offering (scorecard)



Suggestions for courses

Keywords:

media

20 Total results

StartUp School - Social Media for Startups (Journalismin koulutusohjelma)
 Language: EN
 Description: Learns the latest digital and social media trends for startups Gets acquainted with the tools and methods of the trade Creates content marketing for different digital channels Shares ideas and best pr...
 University: HAAGA-HELIA

Journalistinen työ (Journalismin koulutusohjelma)
 Language: FI
 Description: Opiskelija osaa soveltaa journalistisen kirjoittamisen opintojaksolla hankkimiaan tietoja ja taitoja työelämän toimeksiannoissa ideoida toimeksiannosta erilaisia juttuja itsenäisesti ja/tai toimitust...
 University: HAAGA-HELIA

Innovaatioprojekti [basic] (Mediatekniikka - 2020) <metropolia>
 Language: FI
 Description: Projekti- ja innovaatiotyöskentely: ideointi, suunnittelu, toteutus, arviointi, viestintä, julkistaminen, tuotteistaminen ja markkinointi. Yhteistyötaidot, sidosryhmätoiminta ja verkostotyöskentely. L...
 University: METROPOLIA

Skills vs. dream skills

Skills map

Skills map helps you to compare your current skills and skills relevant to your dream jobs! Don't worry about the skill gaps, our AI will help you to reach your goals!

Next

Powered by Headai



Case example: Metropolia University of Applied Sciences

FUTUREPROOFING UNIVERSITY

Guiding learners to take individual and optimal learning paths



1M+ job ads
15k+ courses
100k+ theses



2 months until deployed



Verbalizing skills and competencies into a skills profile. Finding dream jobs. Find optimal courses. Exploring thesis trends.



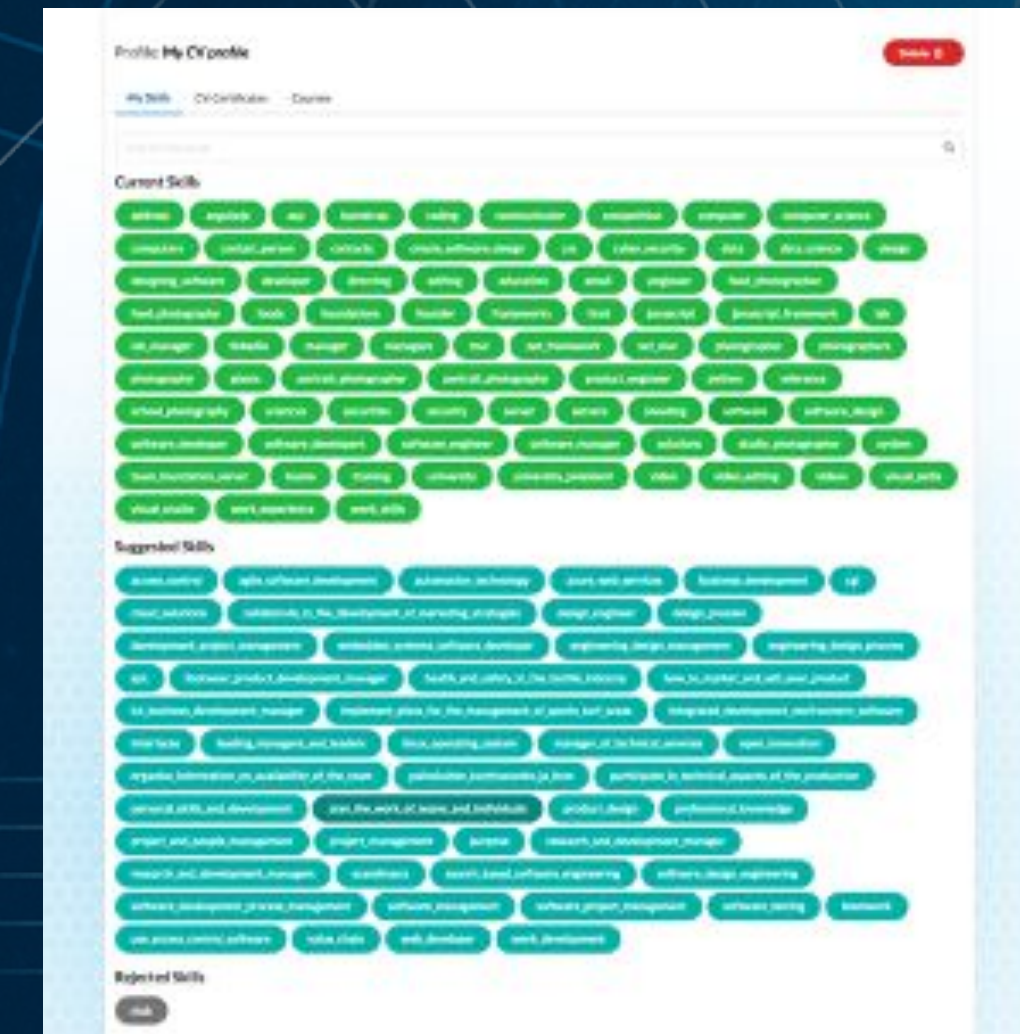
Up-to-date programs, future-ready graduates & faster job placements.



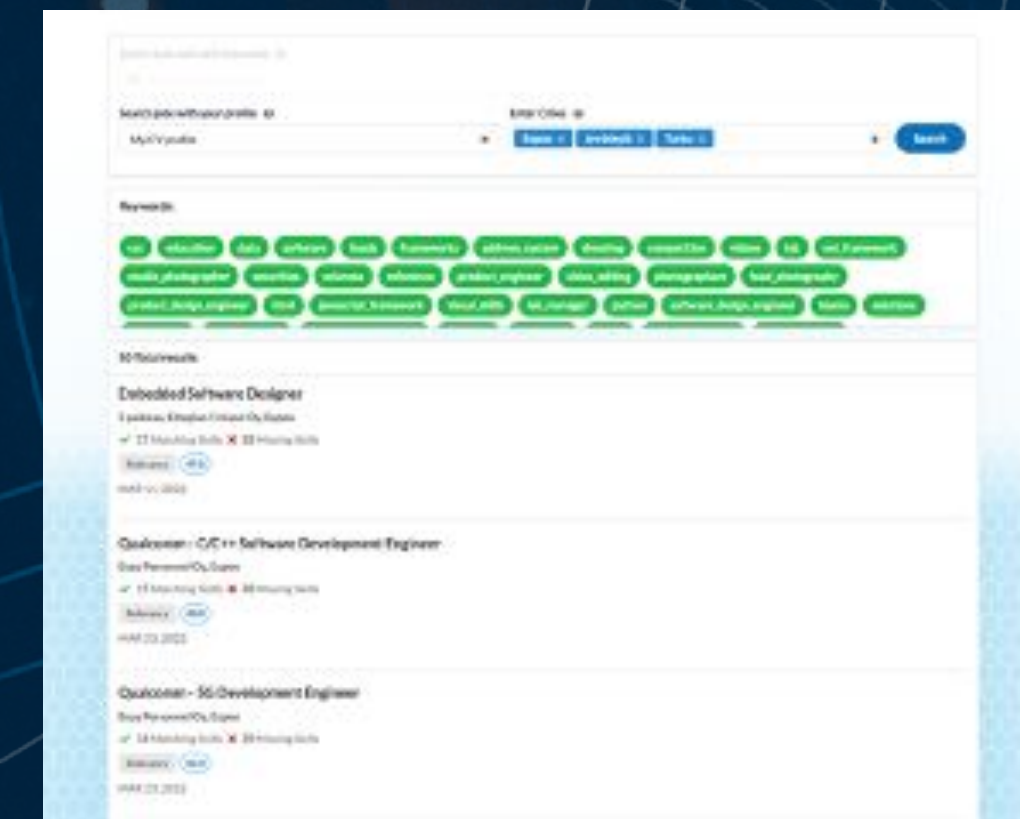
Help students to pursue their dream careers with the help of AI.



[READ MORE ABOUT CAREERBOT](#)



Compass



Compass



Signals

The Focus on the trends and future. Get insights from the labor markets and governmental, professional, and academic trends based on textual big data. Prepare for the future needs e.g. in human capital.

Next, some examples of visualizing the change of skill-related concepts over time.

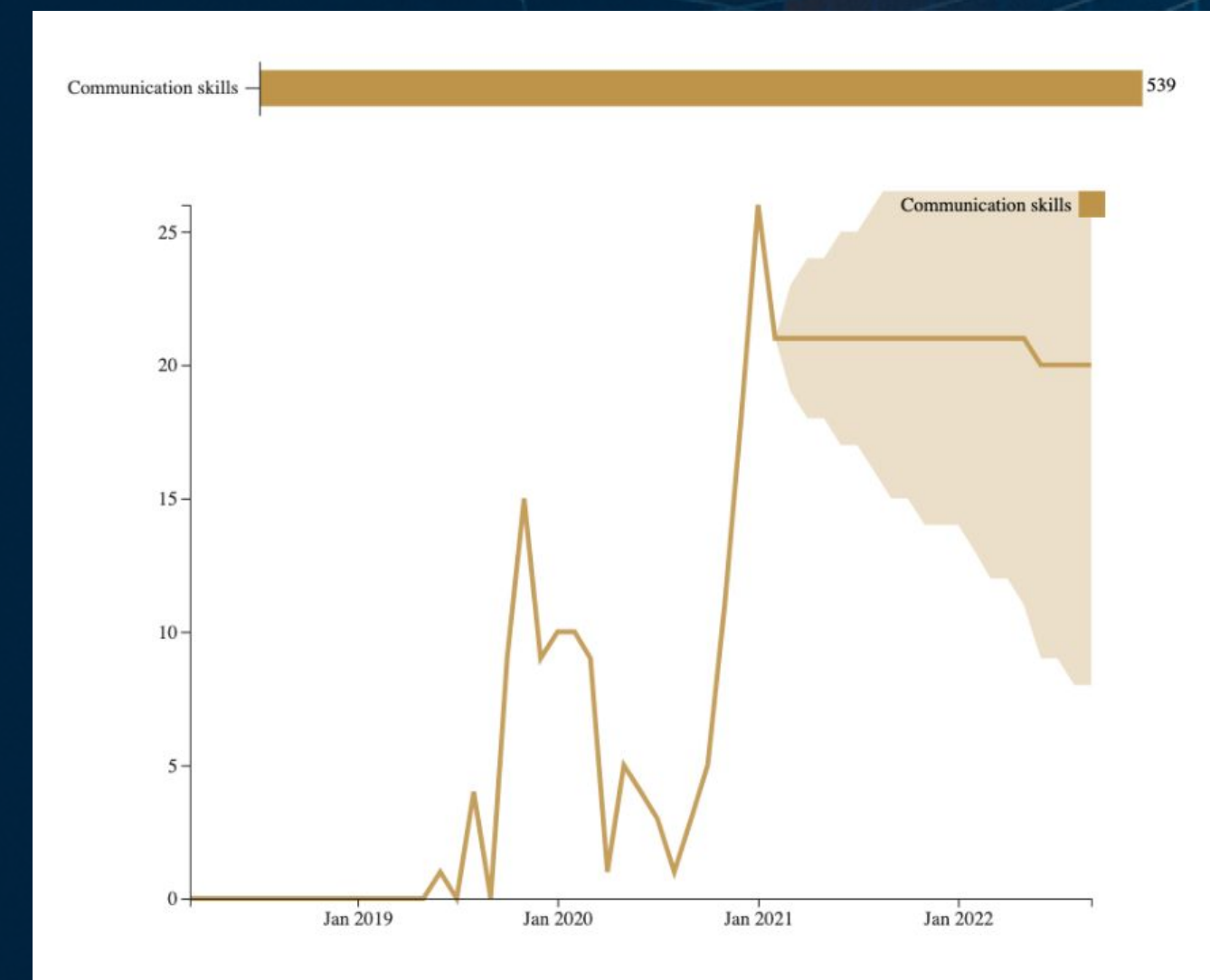
Table, yearly

TOP 20 JOBS		2019 (est)	2018	2017	2016	2015
officer	↓	7.252	7.450	8.191	7.852	7.389
manager	↓	4.454	4.964	5.360	8.325	5.796
assistant	↓	4.034	4.901	7.157	4.621	5.889
worker	↑	2.899	2.378	1.753	2.034	1.574
provider	↔	2.336	2.577	2.899	2.537	1.833
researcher	↔	2.294	2.559	2.393	2.182	2.574
reporter	↑	2.185	1.649	1.865	1.734	1.685
accountant	↔	1.891	0.865	2.258	2.034	3.130
clerk	↑	1.471	1.009	1.326	0.768	1.315
director	↔	1.345	1.261	0.910	1.369	1.213
programmer	↔	1.345	1.495	1.258	1.611	1.556
marketer	↔	1.303	1.360	1.124	1.660	1.361
developer	↑	1.092	0.946	0.674	1.044	0.657
chief	↑	0.950	0.910	0.719	0.601	0.630
designer	↔	0.840	0.739	0.483	0.507	1.028
cashier	↑	0.630	0.378	0.191	0.222	0.389
offerer	↓	0.588	0.910	0.899	0.936	0.611
deliverer	↔	0.571	0.685	0.742	0.596	0.417
trainer	↔	0.571	0.568	0.618	0.473	0.667
secretary	↔	0.445	0.441	0.438	0.369	0.574

Table, monthly

Top osaamiset	2022-5	2022-4	2022-3	2022-2
↑ employment	95	24	17	25
↑ henkilöstötyö	72	48	43	61
↑ sopiva	68	0	0	0
↑ hakemus	65	0	0	0
↑ hr	47	34	38	44
↔ positioning	46	37	42	42
↑ joustavuus	45	21	37	13
↑ sopimus	44	0	0	0
↑ ammattitaito	43	13	13	11
↑ paikkatieto	42	30	9	17
↑ varmistaminen	41	20	6	14
↑ arvostaminen	41	0	0	0
↔ energy	39	29	29	38

Line plot

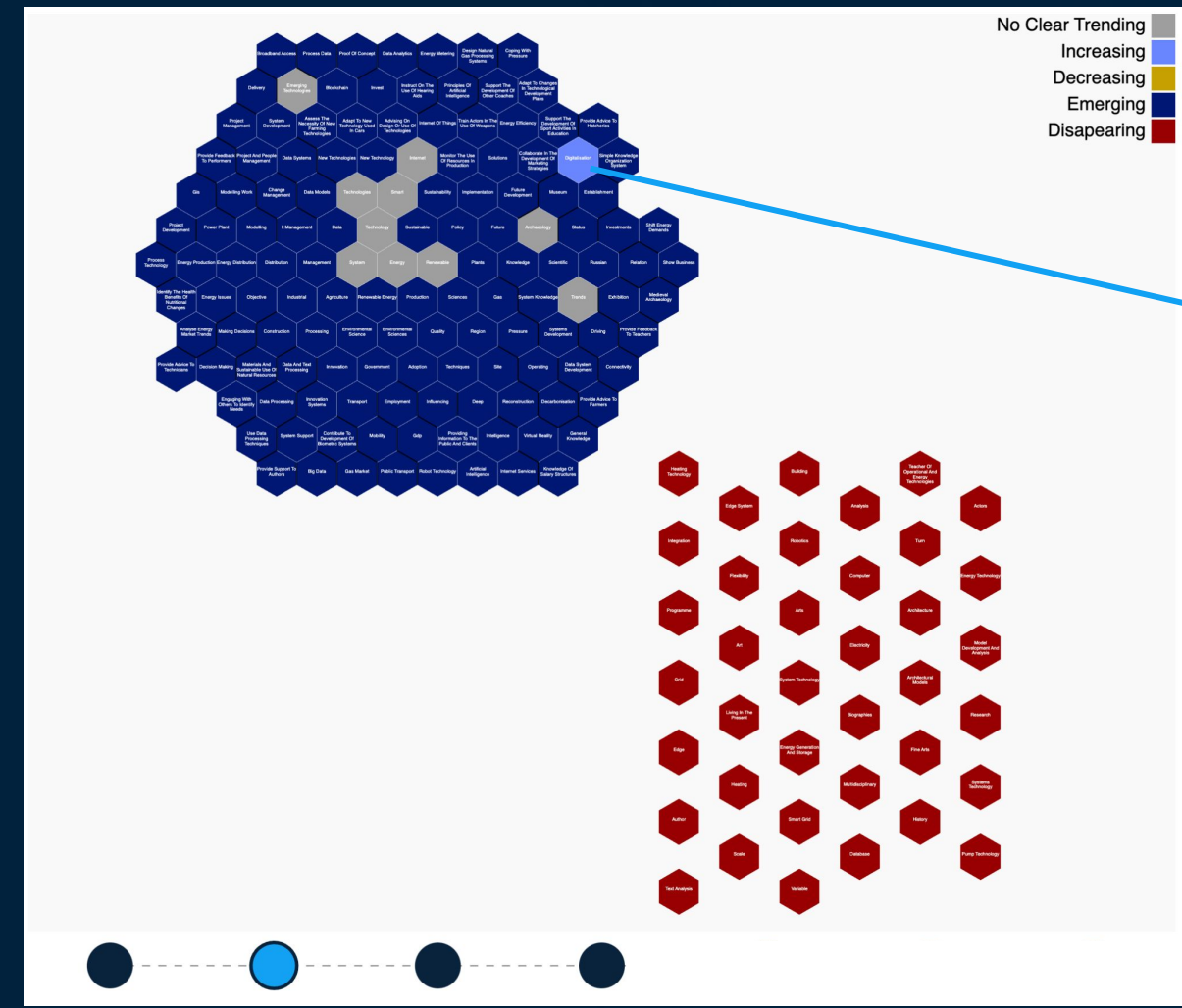




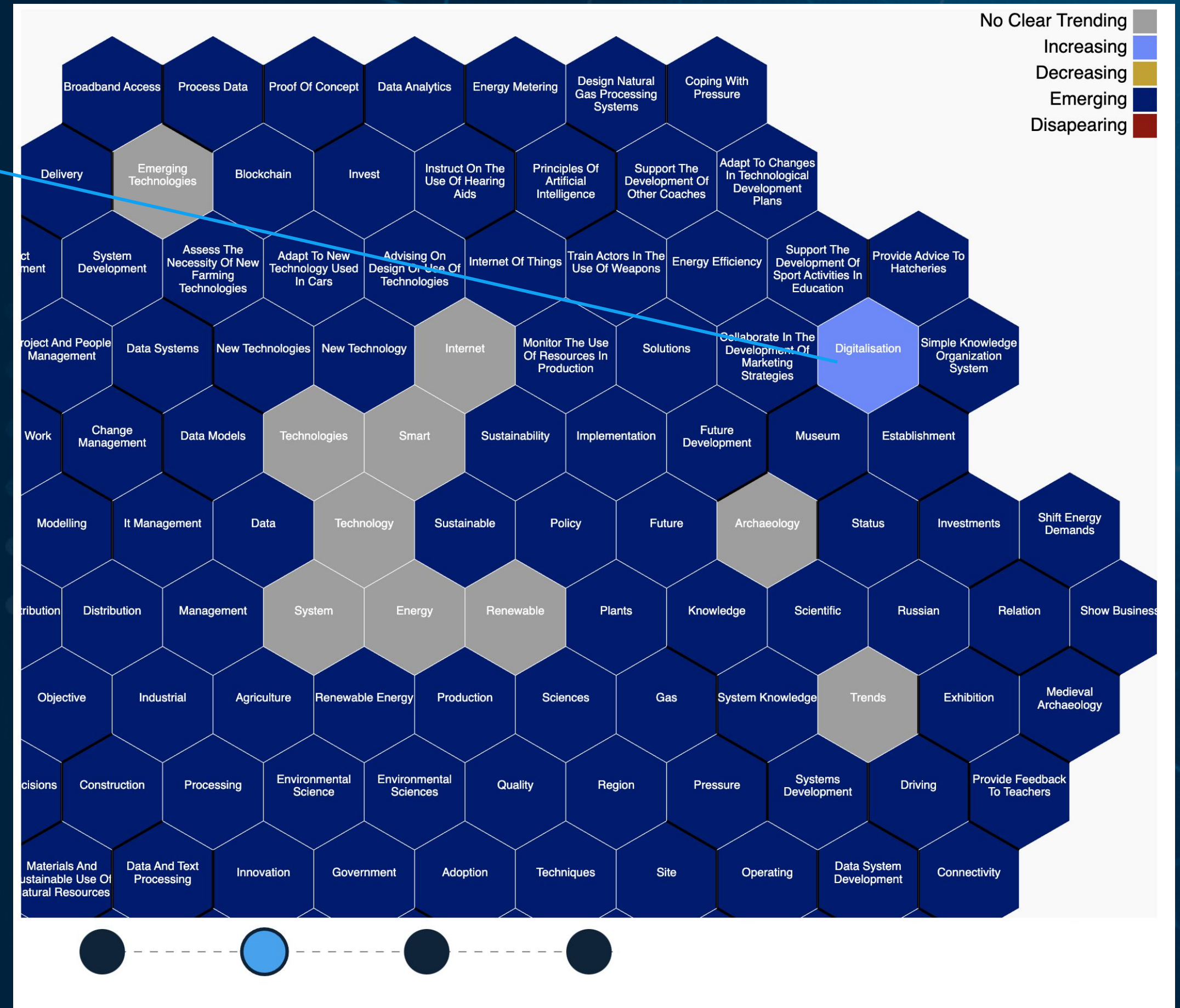
Example: transition of skills over time with maps



1. Starting situation



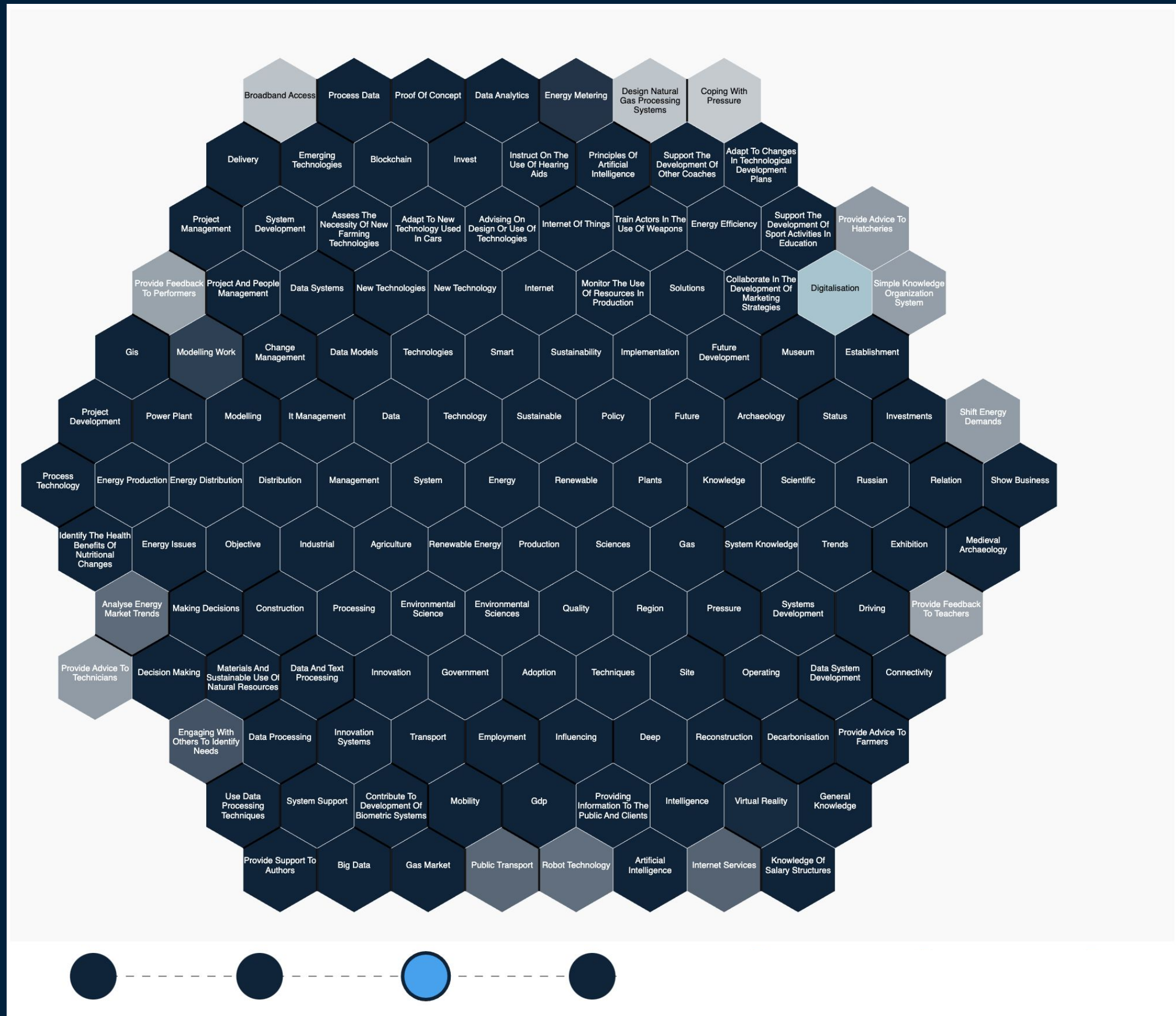
2. New skills emerging



Signals: increasing/decreasing concepts



Visualizing the transition of skills over time with maps



3. The map has grown bigger

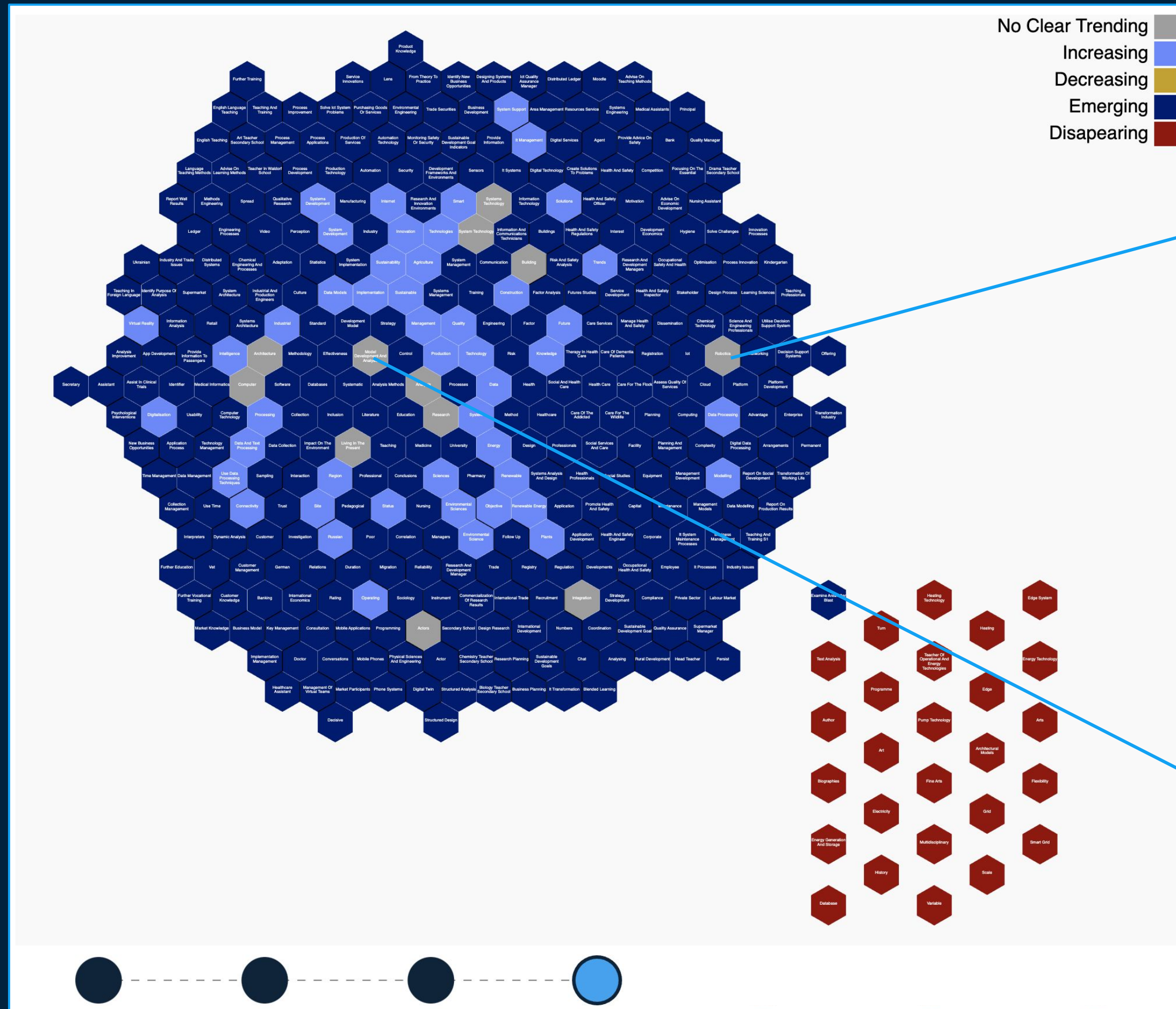


Signals





Spot emerging and increasing concepts



4. Map has grown more, new skills have emerged, some skills have increased



Signals



Integrations

Our result data come in JSON format that is standard and versatile. The customer can choose from multiple options how and where the results will be displayed.

- PowerBI
- Headai iFrame
- JSON integration
- Custom app
- Client Specific System

...

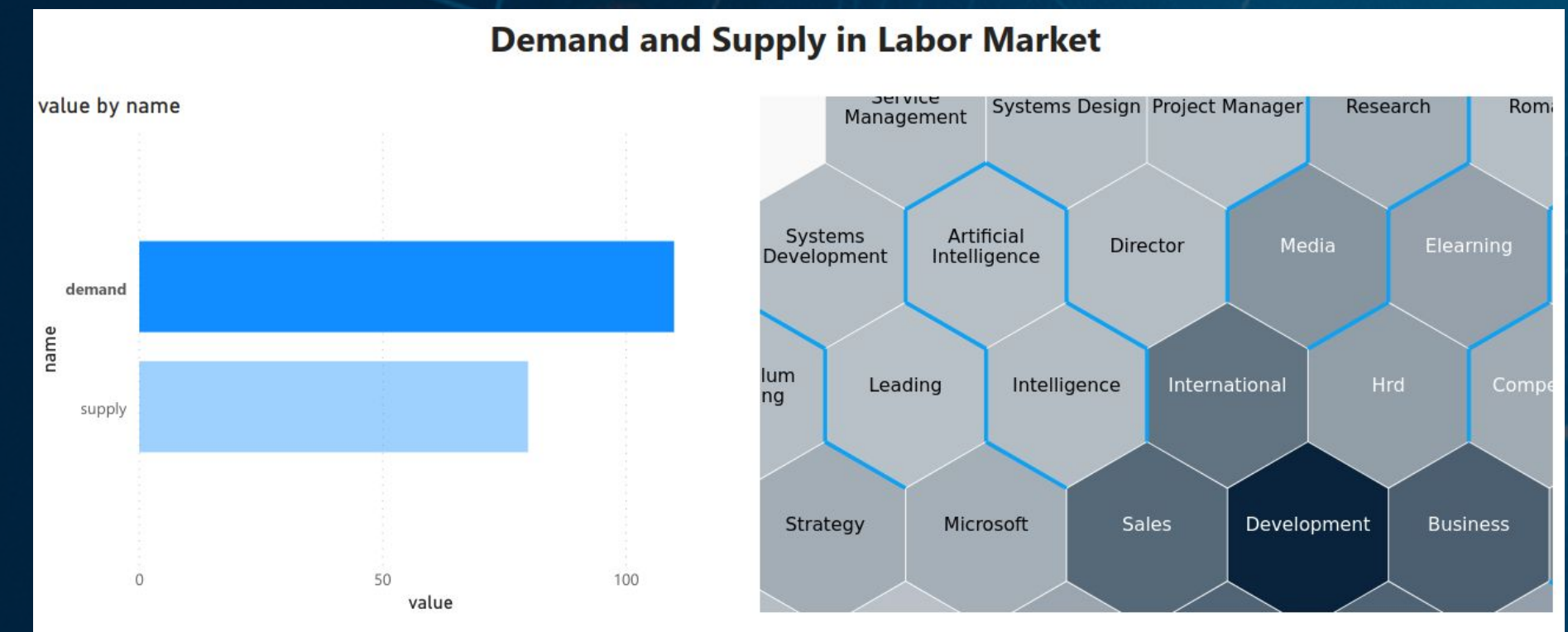




Add Mind Maps to PowerBI Reports

This document describes the process of adding a HeadAI Mind Map into PowerBI Reports, explained step by step

Final Result of embedding a HeadAI Mind Map into PowerBI Reports



CUSTOMER	AREA OF INDUSTRY	IMPLEMENTATION TYPE
Any	Any	Analysis

PROBLEM	SOLUTION
How to add to add Headai Mind Map in an existing PowerBI Dashboard?	IFrame embedding

VALUE Embed Qualitative Analytics provided by HeadAI Core in a Business oriented Report without data preprocessing tasks.

PowerBI with Headai iFrame

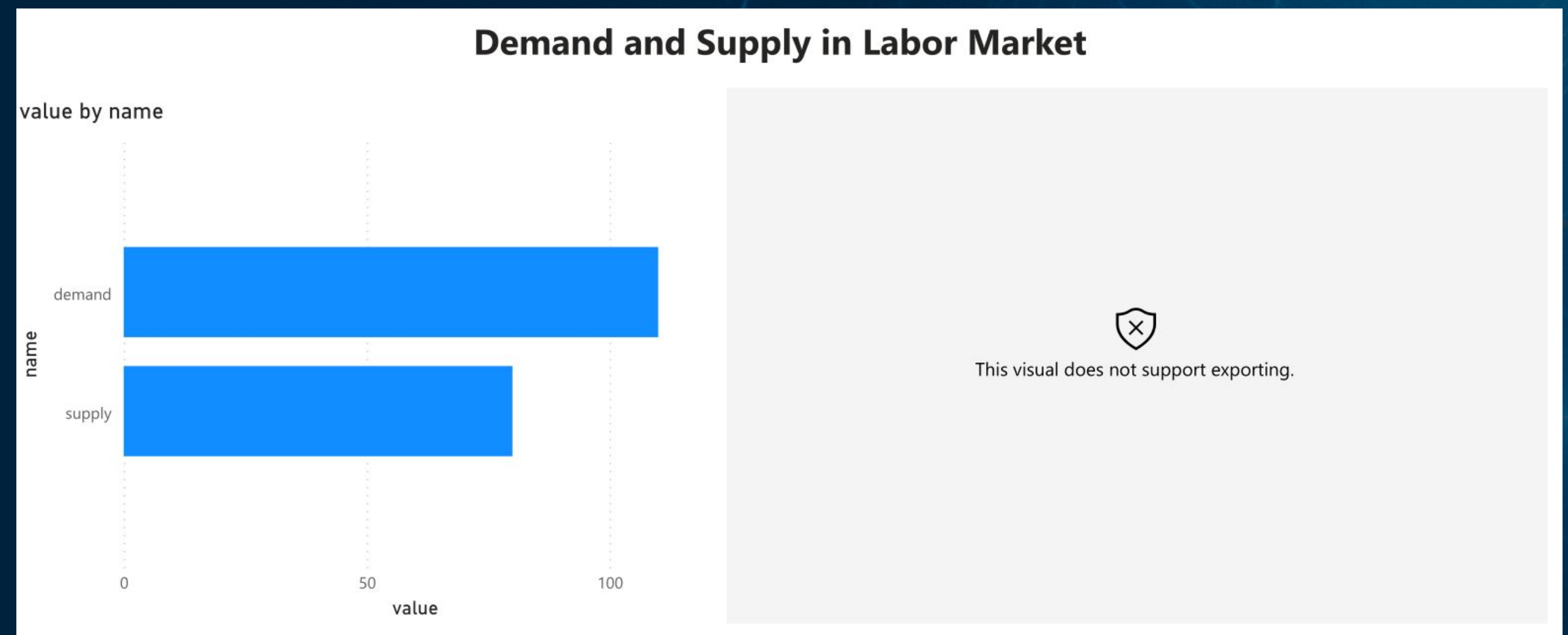




Prerequisite: Dependency

PowerBI doesn't support natively the feature of embedding IFrames or any other kind of HTML code inside the Data Reports. For this reason it is necessary to use an external Visual component found in the Marketplace.

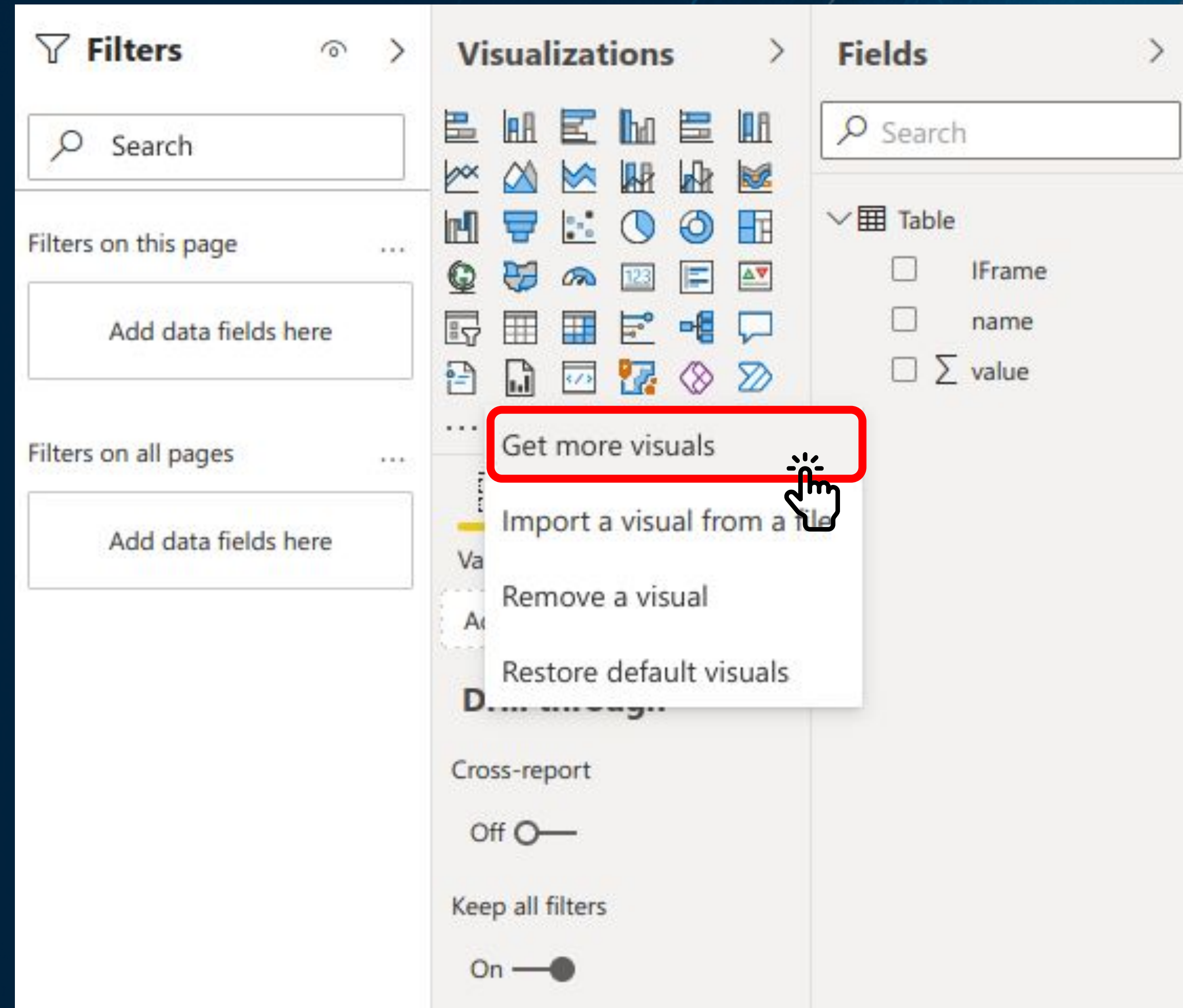
However, the Visual is not compatible with 'Export' functionality, you will visualize directly in the report, but it will not be included in the exported PDF or exported PowerPoint file.





Prerequisite: Dependency

Given that PowerBI doesn't support native HTML embedded code in the Reports, but only in the Dashboards, it is necessary to install an external visual from the PowerBI Visuals Marketplace





Prerequisite: Dependency

Search the Visual called "HTML Content", developed by Daniel Marsh-Patrick

The screenshot shows the Power BI Visuals marketplace interface. At the top, there is a search bar containing the text "html". Below the search bar, there are four visual cards displayed. The first card, "HTML Content" by Daniel Marsh-Patrick, is highlighted with a red rounded rectangle. The other three cards are "HTML Text Styler" by K Team Solutions GmbH, "Shielded HTML Vie..." by Nova Silva BV, and "ParaHTMLViewer" by Paradigm BI. The interface also includes a filter dropdown set to "All" and a "Sort by: Popularity" option.



Prerequisite: Dependency

Install the "HTML Content" Visual

AppSource | Apps for Power BI visuals

< Apps

HTML Content

Daniel Marsh-Patrick
★★★★★ 4.6 (16)

Get It Now

Free

Products
Power BI visuals

Publisher
Daniel Marsh-Patrick

Acquire Using
Work or school account

Version
1.2.1.17

Updated
10/18/2021

Categories
Advanced Analytics
Infographics

Support
Support
Help

Legal
License Agreement
Privacy Policy

Overview Ratings + reviews

Visualise column or measure values as HTML in your Power BI reports.

Report authors can use the visual to write their own columns and measures using DAX, to create dynamic HTML content, or render existing content from their data model that contains HTML in their reports.

For information on getting started, worked examples, more detail on visual properties or version history, you can visit www.html-content.com to learn more.

Privacy Policy
(also available [on the website](#))

- This visual is released under the MIT License and is free and open source.
- This visual's code does not collect your data. Data is accessed for display purposes only.
- This visual allows a report author to supply their own HTML and scripting content via the Power BI data model. If you have specific privacy and/or security concerns about this HTML and scripting content, please refer such concerns to the author of the report.

Advanced Use Case Considerations

For those who are more web development-savvy and want to attempt more advanced content, while the visual will have a good go at rendering the HTML content you supply, it only only passes your content into the DOM on your behalf, and what actually gets rendered can depend on a several factors.

Create HTML Content from Data

```
Country Flag HTML =  
"<img src='https://www.countryflags.io/"  
& Financials[Country Code]"  
& "/flat/24.png'"
```

Country Flag HTML =
"<img src='https://www.countryflags.io/"
& Financials[Country Code]"
& "/flat/24.png'"

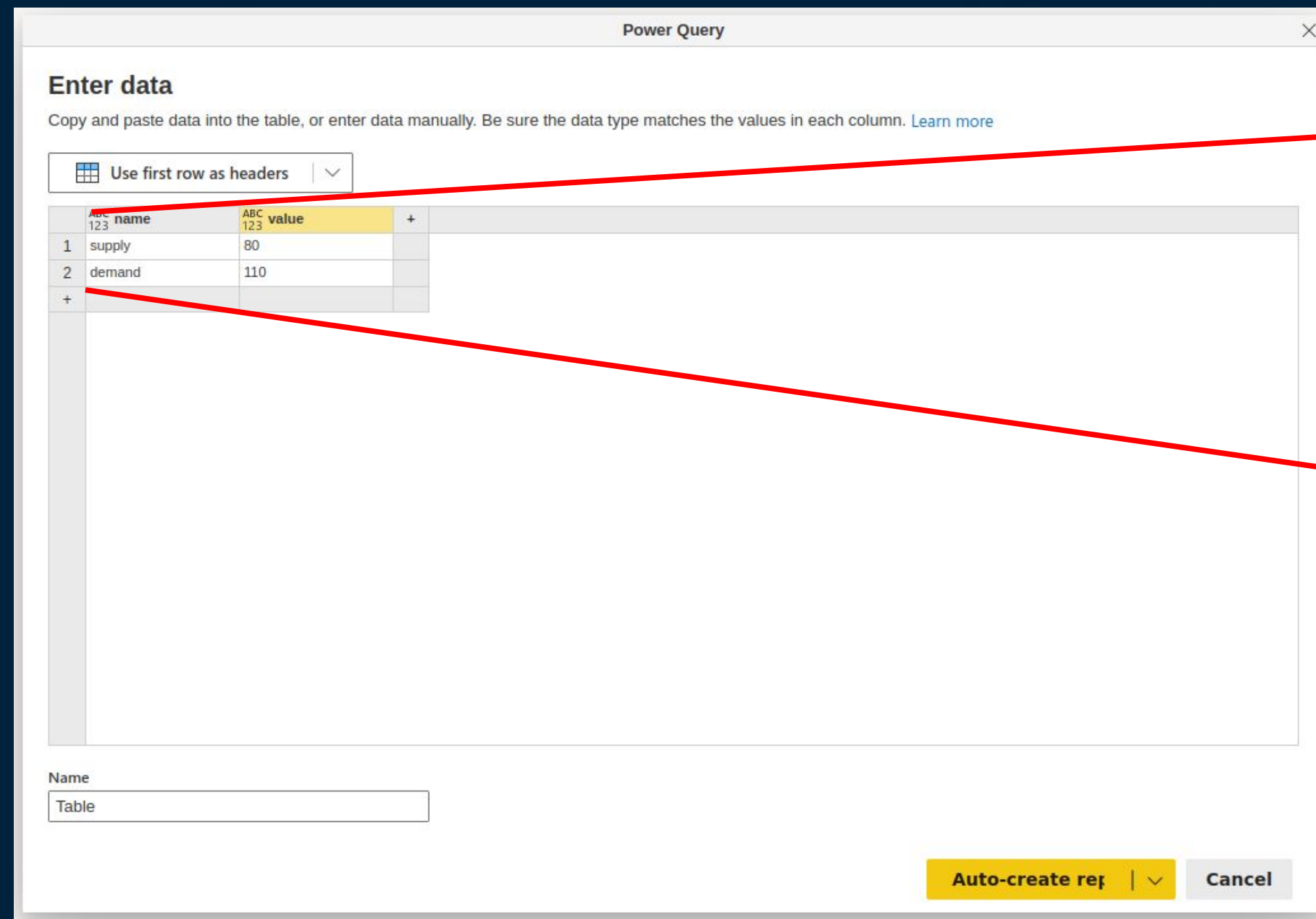




Prerequisite: Data Modelling

For this guide, we will use an example table with two columns: Name and Value. This table will have two registers: one for Supply and one for Demand.

Independently of the number of columns and rows of your table, you can proceed following the same steps.



ABC 123 name	ABC 123 value
supply	80
demand	110





Prerequisite: Data Modelling

The objective is to add an interactive Mind Map in the PowerBI report, that changes depending on the filter applied to this table.

For this reason, we need to add an extra column that will contain the HTML code that shows each Mind Map in the report.

In the following section you will find a complete explanation of how to build the values for this extra column.

	ABC 123 name	ABC 123 value	ABC 123 IFrame
1	supply	80	<iframe src="https:/...
2	demand	110	<iframe src="https:/...



1. Build your IFrame Urls

The IFrame URL is used to embed the HeadAI Mind Map visualizations in a PowerBI Report. You can build it as follows:

```
https://megatron.headai.com/mapIFrame.html?json_url=JSON_URL
```

Example: A valid json url with an example Mind Map is:

https://megatron.headai.com/analysis/TextToMindMap/TextToMindMap_W8RYa5ub681635861184666.json

Then, the IFrame Url for that Mind Map is:

https://megatron.headai.com/mapIFrame.html?json_url=https://megatron.headai.com/analysis/TextToMindMap/TextToMindMap_W8RYa5ub681635861184666.json

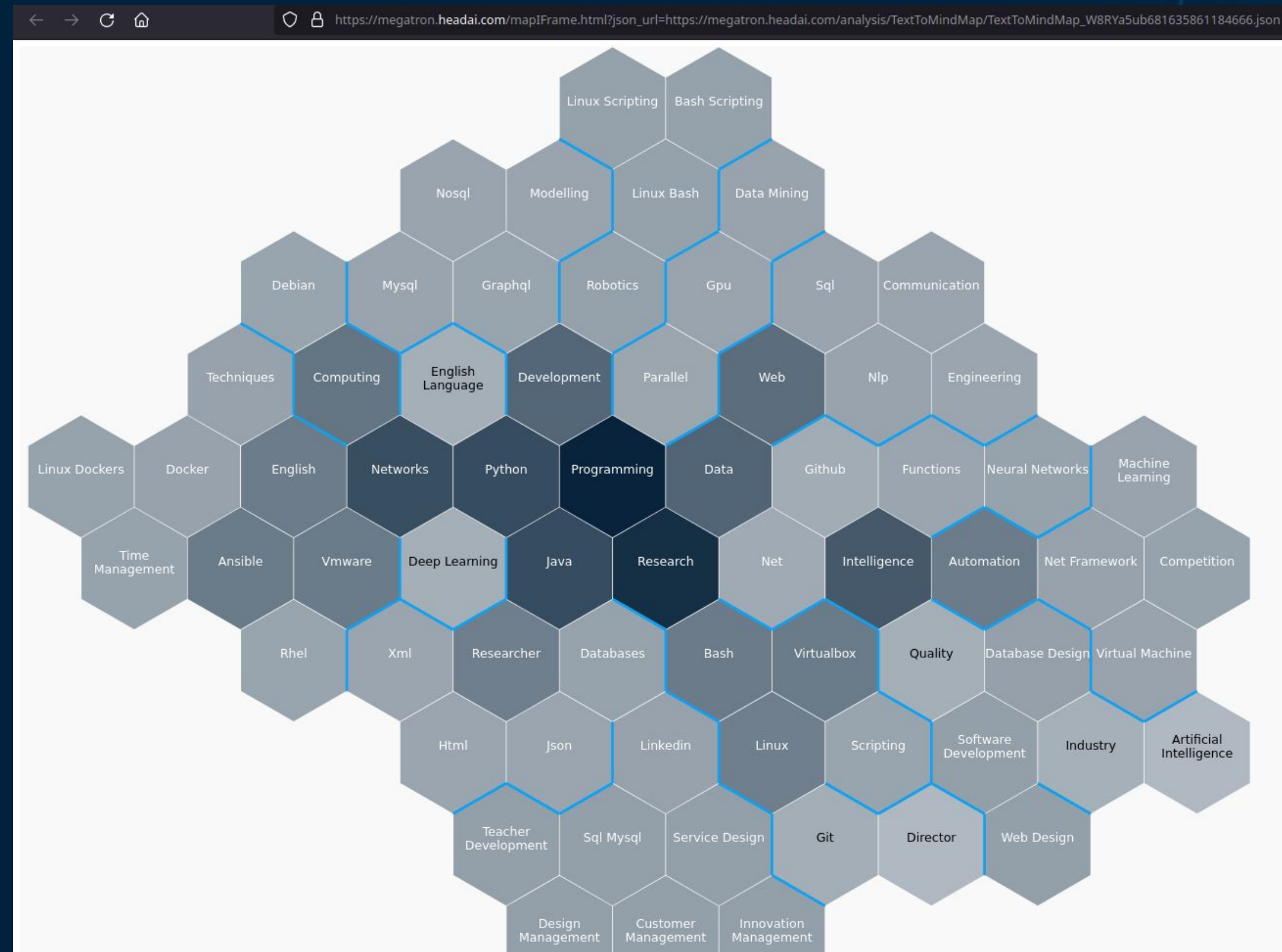
Repeat this step for each Mind Map that you want to add in the Report





2. Test your IFrame Url

You can test that the IFrame Url was correctly built by entering it in the browser. You should see a page with the Mind Map visualization correctly loaded in the screen. For the previous example Url, it should look as follows:



 Headai iFrame





3. Build the IFrame HTML code for each Map that you want to display

Remember to replace *IFRAME_URL* for the Url built in the previous step

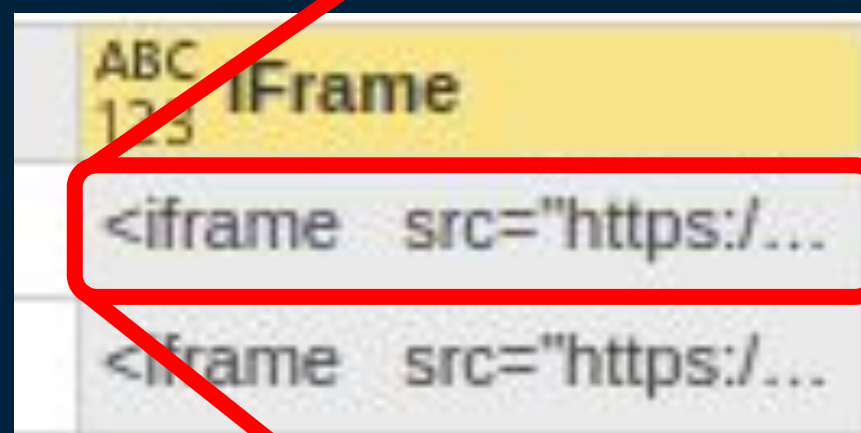
	ABC 123 name	ABC 123 value	ABC 123 iFrame
1	supply	80	<iframe src="https:/...
2	demand	110	<iframe src="https:/...

```
<iframe
  src="IFRAME_URL"
  width="100%"
  height="100%"
  scrolling="no"
  frameborder="0"
  style="position:fixed;"
></iframe>
```





3. Build the IFrame HTML code for each Map that you want to display



```
<iframe
  src=https://megatron.heada...
  width="100%"
  height="100%"
  scrolling="no"
  frameborder="0"
  style="position:fixed;"
></iframe>
```

IFrame Url used as an example in the previous step

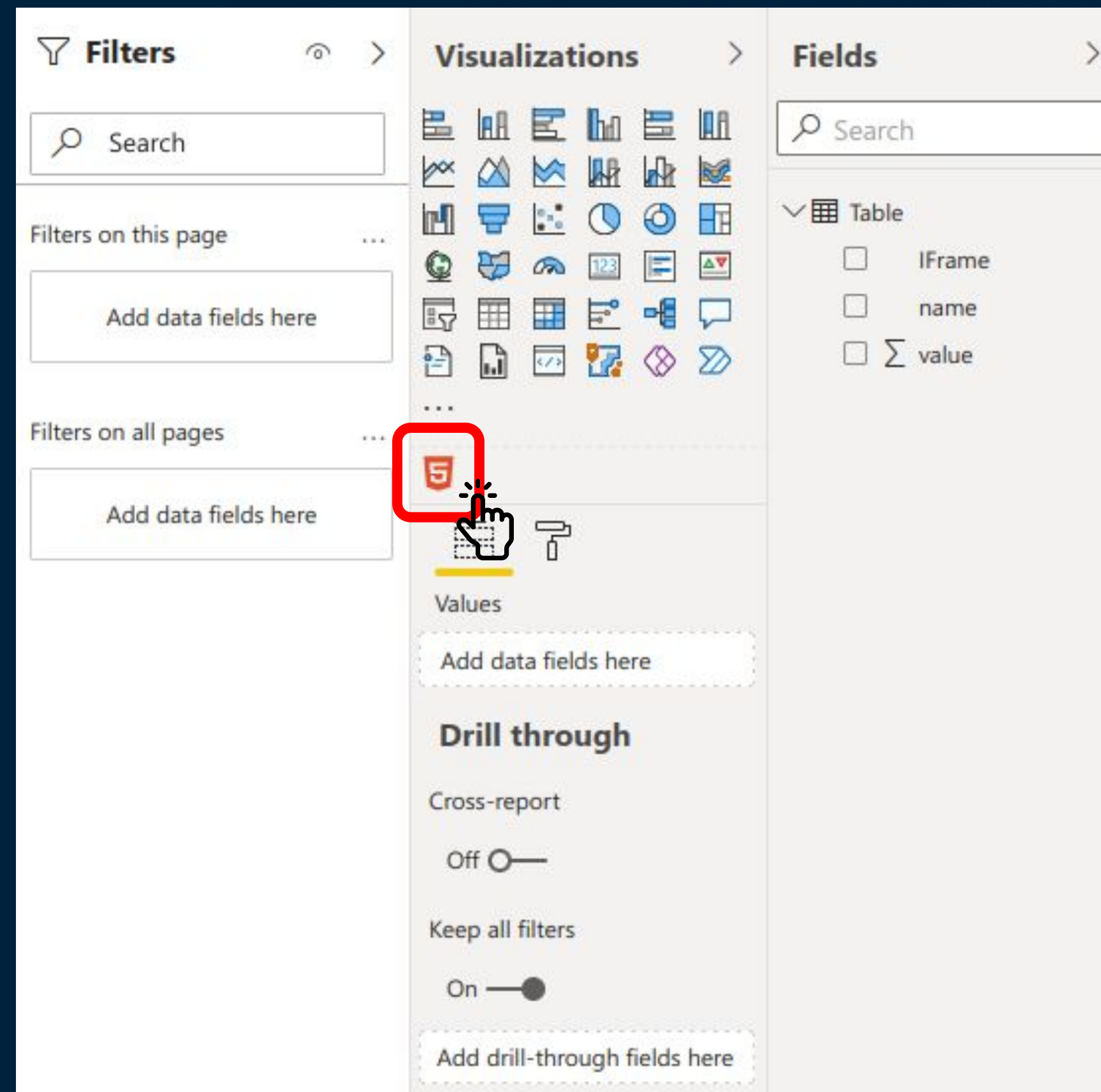
https://megatron.headai.com/mapIFrame.html?json_url=https://megatron.headai.com/analysis/TextToMindMap/TextToMindMap_W8RYa5ub681635861184666.json





Create the Visualization element

If you installed correctly the Visual, you will see it's icon in the visualization list





Select the Values for the visualization

Select the extra column that you created for the IFrame HTML Code

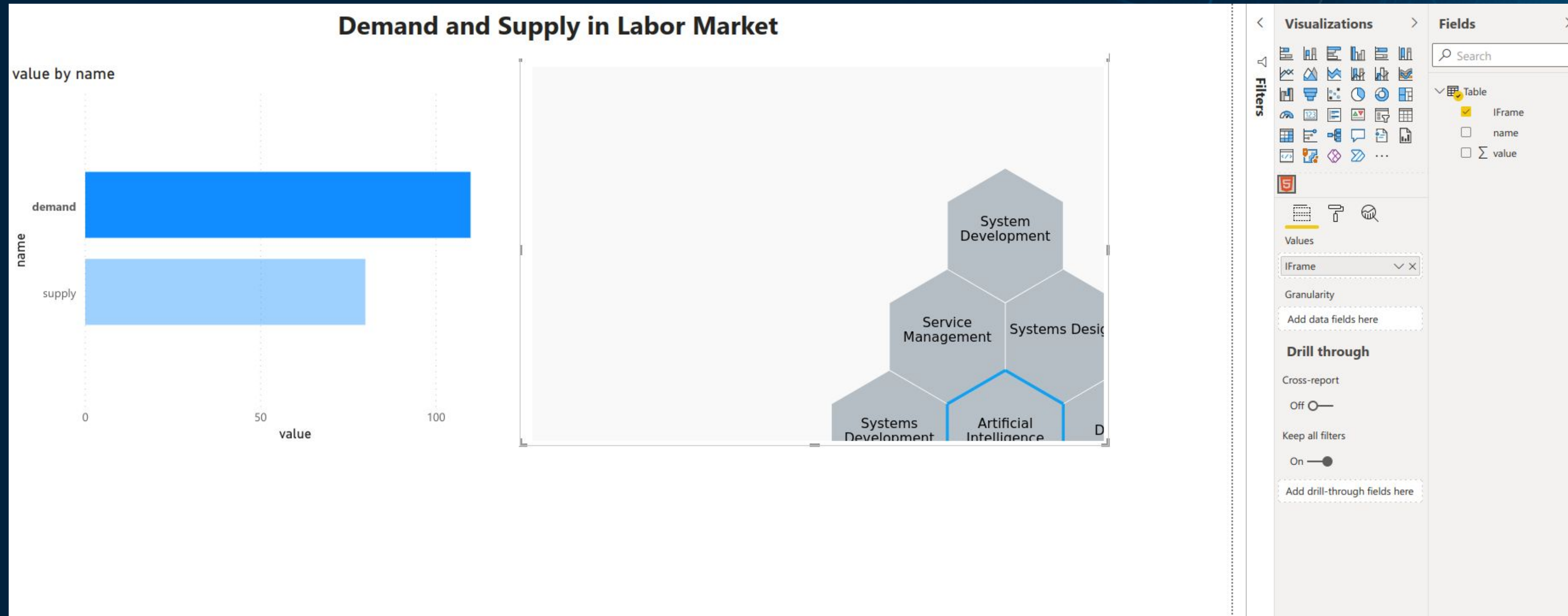
The screenshot shows the PowerBI interface with the Fields pane open. The 'Fields' pane is divided into sections: 'Filters', 'Visualizations', and 'Fields'. The 'Fields' section is expanded to show a 'Table' visualization. Under the 'Table' section, the 'Iframe' field is selected and highlighted with a red box. Below it, the 'name' and 'value' fields are listed with checkboxes.

Field	Selected
Iframe	<input checked="" type="checkbox"/>
name	<input type="checkbox"/>
value	<input type="checkbox"/>



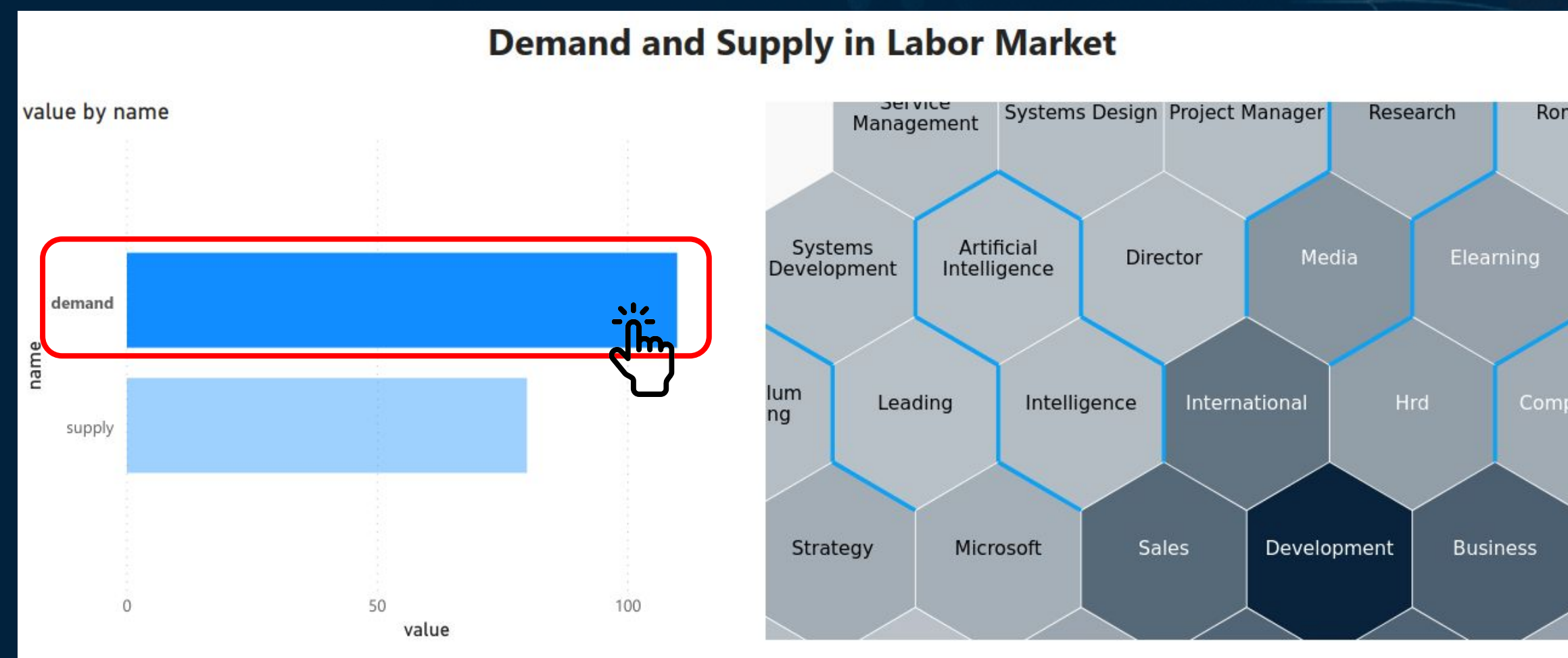
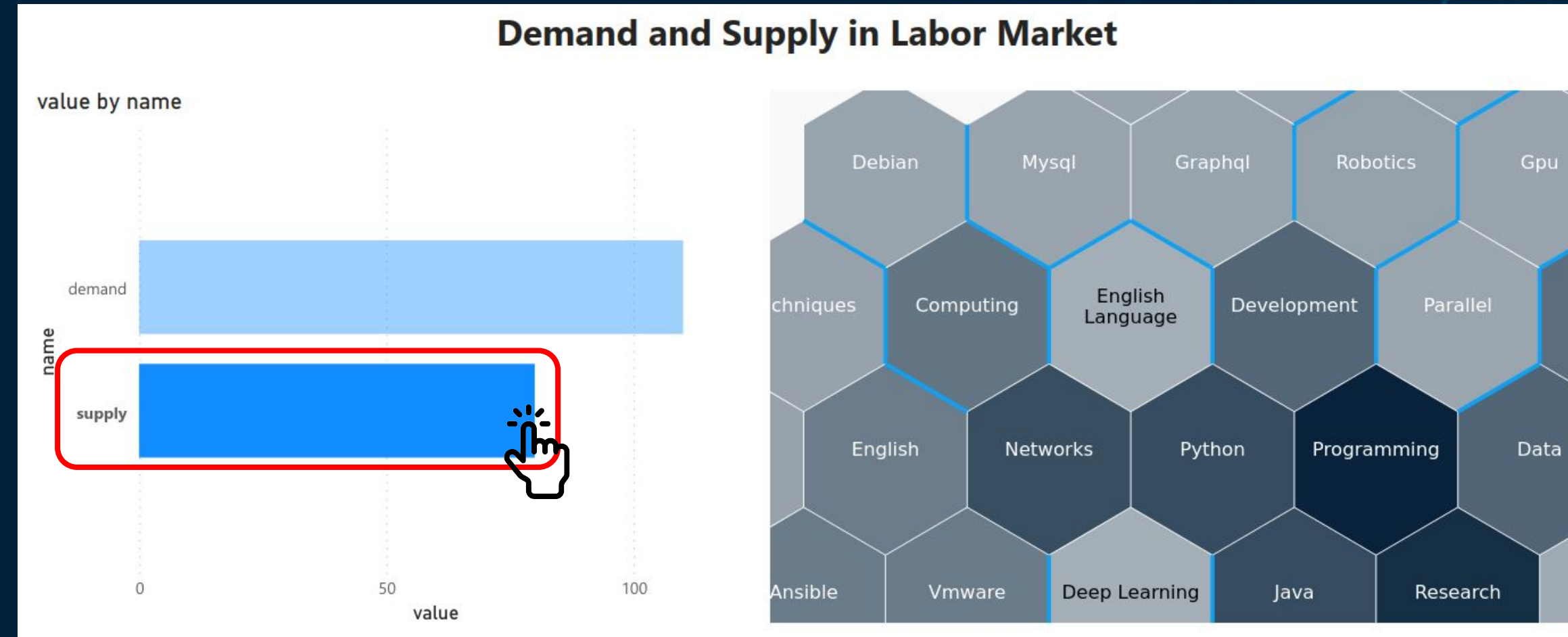


Adjust the size of the Visualization





Final Result





Custom apps

Headai's AI calls are easy to integrate into custom applications. A good example is Fast Degree, an app offering nanodegrees to gain new skills for leveraging your position in the job markets.



Fast Degree

Raise your labor market value
Start building your future and leveraging your position in the job market

Custom app

[Download for Android](#)

[Download for iOS](#)





How to get Fast Degree in your mobile?

- Find in Google Play Store: <https://play.google.com/store/apps/details?id=com.apps.fastdegree>
- or App Store: <https://apps.apple.com/fi/app/fast-degree/id1463943212>
- Press 'Install' / 'Get' button to install Fast Degree on your device

Fast Degree
 HeadAI Education
 PEGI 3
 Offers in-app purchases
 This app is available for your device
 Add to Wishlist
 Install

Discover
 Find new content to study and proof yourself

- Continue
- Pricing: printing, retail, brand management, ma...
- Machine Learning: machine learning, self-organizing map, ...
- Computer Vision: computer vision, google cloud platform...
- Edtech: educational technology, learning mana...
- Artificial Intelligence: artificial intelligence, cognitive science, ...

Most valuable knowledges Globally

Strategic Human Resource Ma...

Machine Learning
 Description
 Learn self-organizing_map, cluster_analysis, hierarc...
 Market value: 0 €/y
 Price: 0

Topics
 machine learning
 backpropagation
 k-nearest neighbors algorithm
 feedforward neural network
 physical neural network

Start

Topics
 Machine Learning
 Topics: 3/28
 Progress: 7%

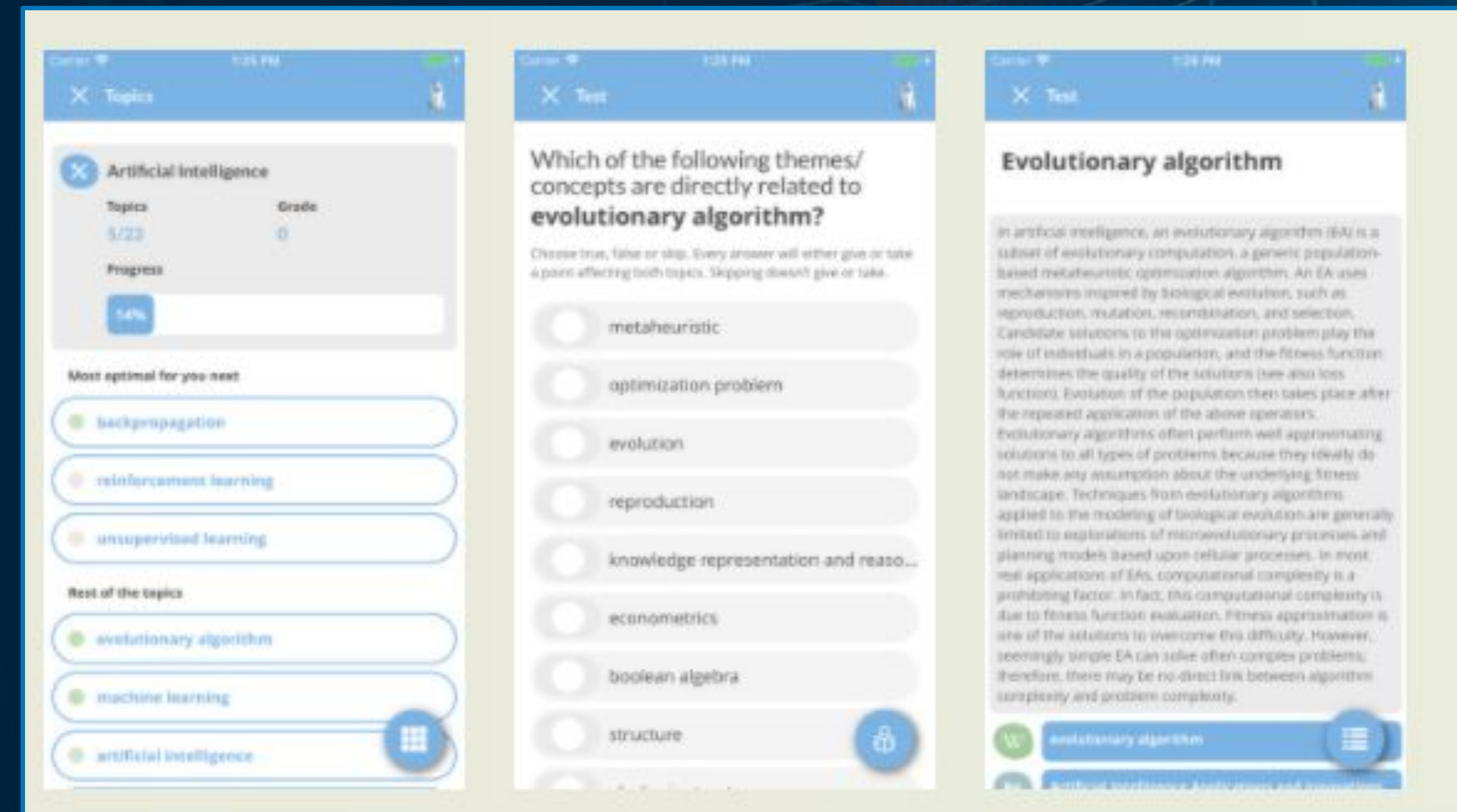
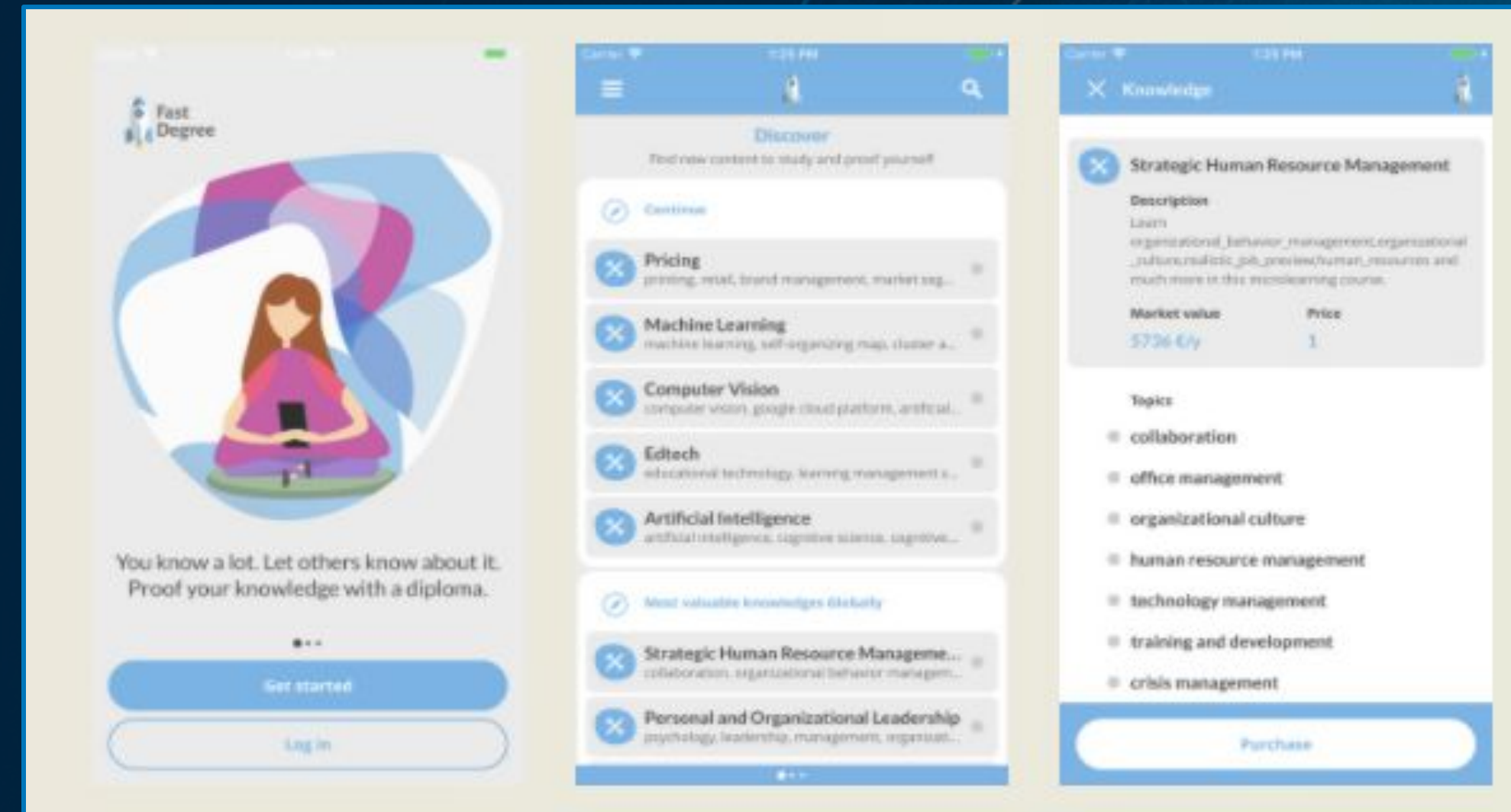
Most optimal fe
 cognitive
 artificial r
 self-organ
 backprop.
 k-nearest

Do you know what you should know to be valuable in the job market? Fast Degree introduces you to the concept of Headai Fast Learning where testing comes first and you'll only study those topics you don't already know. It helps in revealing the true skill set you possess and expanding your knowledge with material collected by Headai's AI to support learning – e.g. videos, books, wiki, news. At the whole time you will be verificating your knowledge that will be added to your Headai Skill Diploma.



How it works?

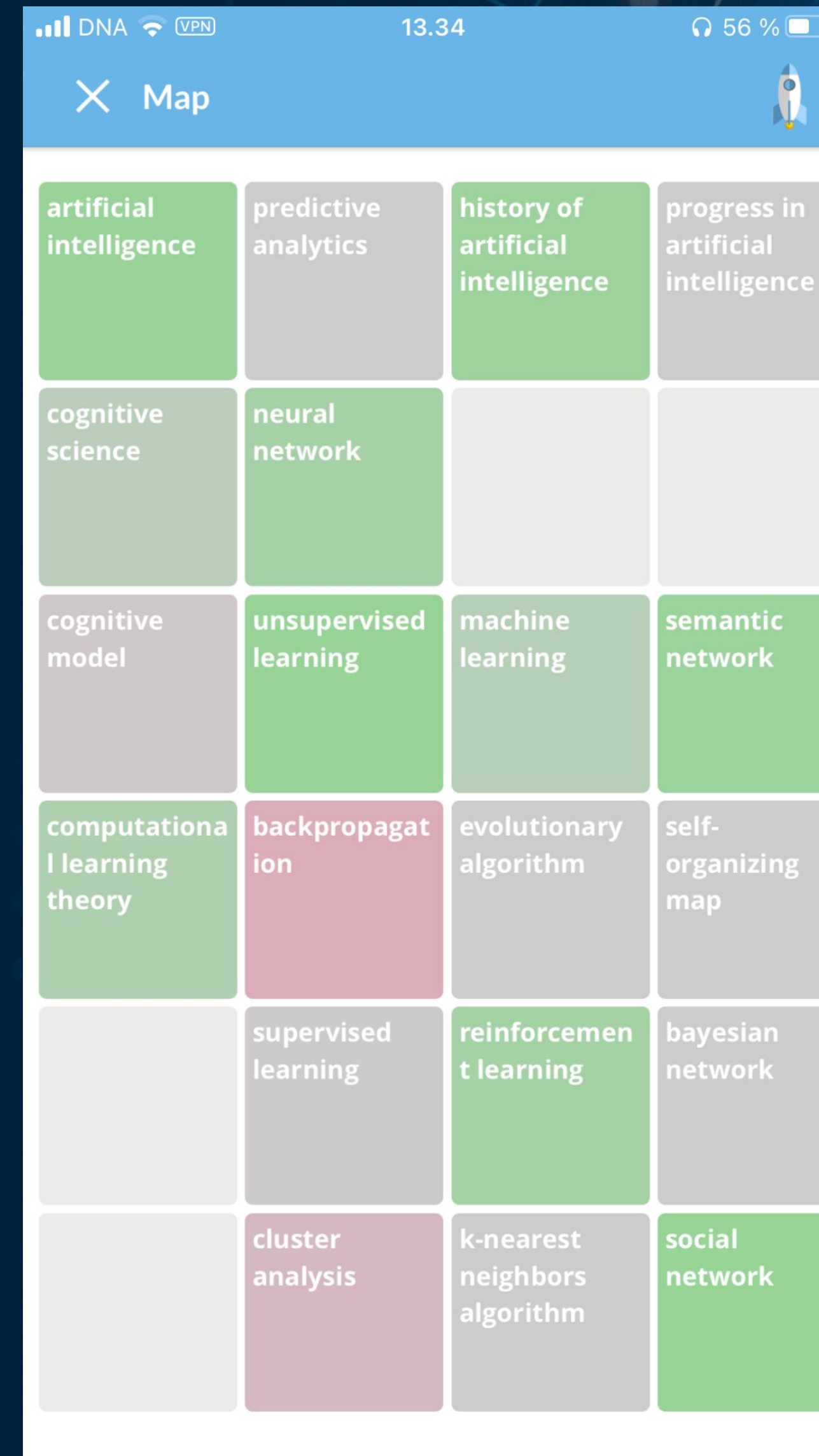
- Open the app and register with your email. You'll receive a verification email to activate your account.
- Answer the quick survey and get started with exploring the topics.
- Start building your knowledge base. There are many free topics available. You can buy coins to open nanodegrees which cover groups of closely related knowledges with their core topics.
- Verify your knowledge with quick and simple tests. Use the learning material in case you need it.
- Gather skills to your diploma which covers your verified knowledges, accomplished nanodegrees and the estimation of your market value.
- The diploma can be opened/shared anytime.
- Market value is calculated based on combination of stat.fi open data on salaries and EU labour market job-skill definitions.





Learning Map view

- Green color indicates that you know this topic
- Red color show that you need to improve your understanding in this topic
- Grey color indicates that you haven't tested this topic yet, or you have neither negative nor positive test result.

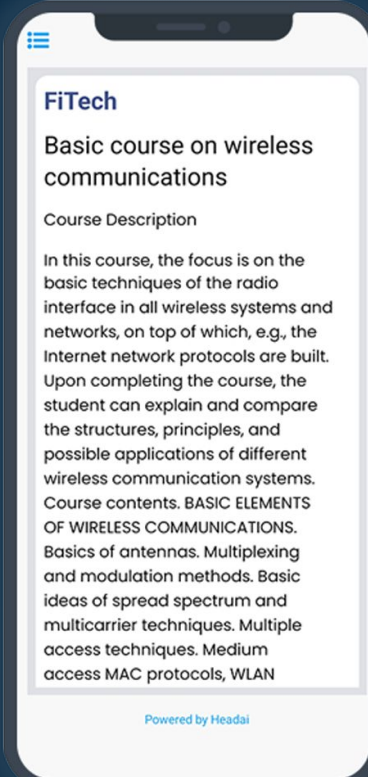
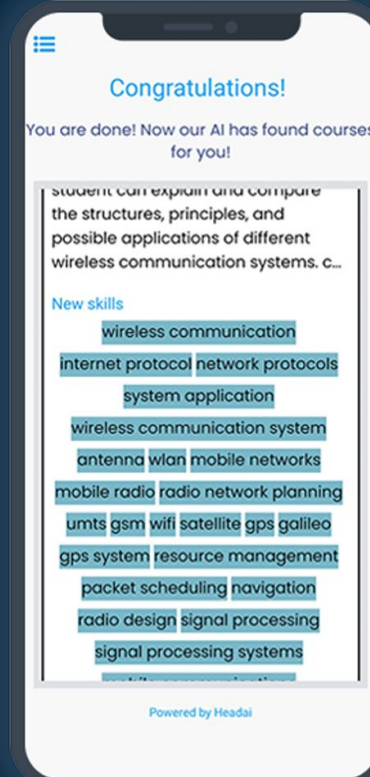
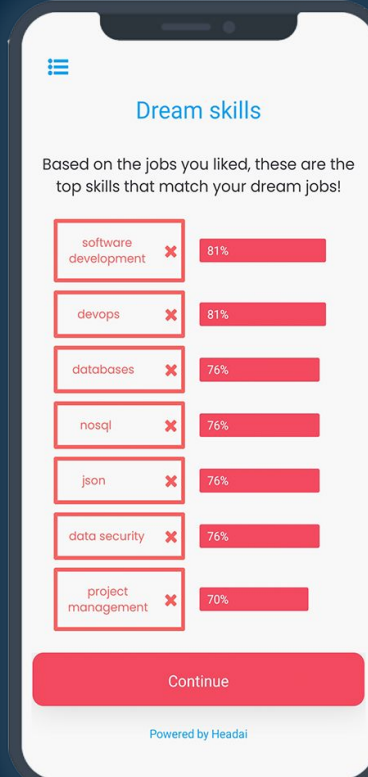
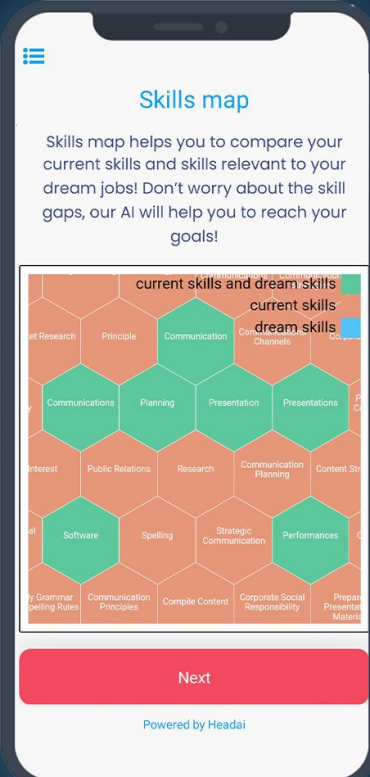




Futureproof

Futureproof yourself – Find learning paths toward your dream job!

Futureproof offers you an easy way to visualize your current skill set and helps you to reflect it to the skills required in your dream jobs. The application offers also recommendations for updating your skills. Futureproof uses open labor market data and Headai's cognitive artificial intelligence to identify and link skills.



[Download for Android](#)

[Download for iOS](#)

Scorecard

Compass

Custom app



Here is how it works

Build dream profile

Choose job categories of your interest
Point out interesting job ads
Define your dream skills

Build current profile

Define your current skill profile by searching from a huge amount of ready-made skill sets of different professions.
Keep the valid skills, remove those that are not relevant

Discover your skills gap

See your current skills and dream skills in a different colors on a skills map
Discover valuable skill clusters near your current skills
Find the skill clusters that you need for taking your career to the next level

Get course suggestions for optimal learning paths

Finally, to reach your dream, choose optimal training courses to take the first and the most important steps toward your dream.



[Video tutorial \(EN\)](#)

[Video tutorial \(FI\)](#)

[Read more in Headai news](#)



Headai and Technology Industries of Finland utilizes AI and skillsdata in the technology sector

The Futureproof mobile application is made by Headai and its piloting started in 2022 fall in cooperation with the members of **Technology Industries of Finland, Union of Professional Engineers, Academic Engineers and Architects in Finland TEK, and The Finnish Business School Graduates**. Futureproof continues the cooperation between Headai and the Technology Industries of Finland in order to identify the skills needs of the technology sector, and to utilize the open skills data. Below, you can read more about the previous activities.

Read more about Headai x Technology Industries of Finland cooperation

[Skills Data Playbook published](#)

[Download Skills Data Playbook](#)

[Skills Pulse \(Osaamispulssi\)](#)





TestFlight - Testing apps on iOS devices

TestFlight is a service for testing mobile applications in the iOS environment.

- Send the email address to your contact person for the pilot (Headai links the address to TestFlight)
- You will receive an email with a code from TestFlight
- Download the TestFlight application for your iPhone or iPad
- Enter the code you received into TestFlight to start testing the app



API Documentation

Headai API offers powerful NLP & ML operations on unstructured textual data in any language. The API can be easily integrated into any business applications and the output data is available in JSON format. It supports various types of languages, locations, ontologies, and many other useful filtering parameters which make it unique from other competitor solutions in the market. It enables interoperability on any textual data, even if it is fragmented, unstructured natural language, giving multiple possibilities for simulations.

[Headai APIs –Main Page](#)

Visit our [Swagger Main Page](#) that provides links to the following APIs

[Text to Keywords](#)
[Text to Statistics](#)
[Text to Mindmap](#)
[SumMaps](#)
[Word to Relations](#)


[Get Jobs by Text](#)
[Get Education by Text](#)
[Document by Text](#)
[Document to Categorized Text](#)
[Skills Compass](#)

[Scorecard documentation](#)



FAQ

Find our FAQ and glossary on <https://headai.com/faq/>.



We help organizations succeed in a rapidly changing future by helping them find answers from large amounts of data that they can't otherwise see.