

A case study by Minesoft Ltd.



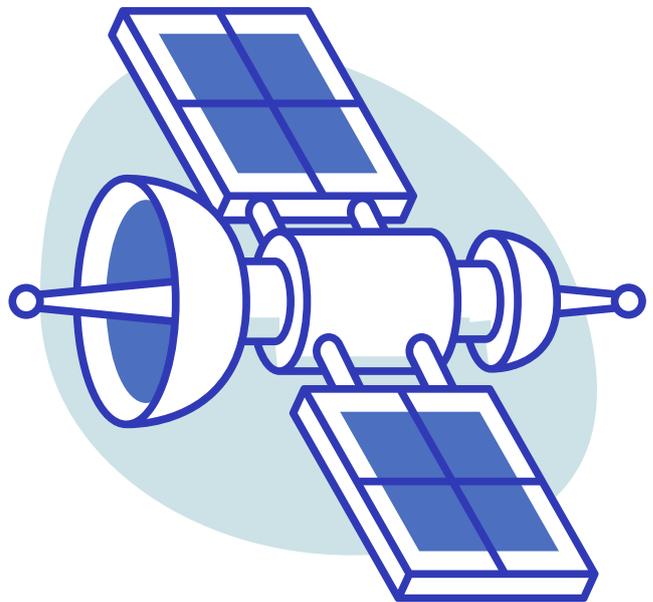
# **UMICORE'S SUCCESSFUL ADOPTION OF AN IP KNOWLEDGE MANAGEMENT SOLUTION TO LEVERAGE PATENT DATA ACROSS MULTINATIONAL BUSINESS UNITS**

# INTRODUCTION

Intellectual Property (IP) is a vital asset for any innovation-driven business. Patents are used to protect unique products and processes, track emerging technologies, and monitor competitor activity.

Communicating the importance of IP across large multinational corporations is a known challenge around the world. When there are multiple business units dotted in different locations, there is often an accompanying internal struggle to keep everyone in the loop and get the right information in front of those who need it.

Many departments within multinational corporations are simultaneously involved in the IP lifecycle. Linking everyone together with one centralised solution is an ideal scenario few have been able to secure into their business reality.



**"when there are multiple business units dotted in different locations, there is often an accompanying internal struggle to keep everyone in the loop..."**

Minesoft's Pat-KM solution aims to solve this exact problem. Here's how Umicore, a Belgian materials technology group, successfully adopted Minesoft's IP knowledge management solution to leverage patent data across its multinational business units.

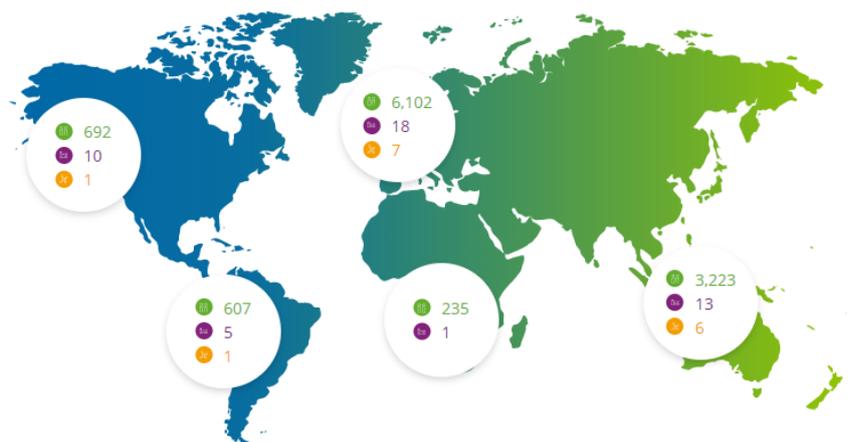
# WHO IS UMICORE?

Umicore is a global materials technology and recycling group dedicated to applying its expertise in materials science, chemistry and metallurgy to make a real difference in the world.

Umicore spends approximately 80% of its R&D budget in the area of Clean Technology such as emission control catalysts, materials for rechargeable batteries and photovoltaics, fuel cells, and precious materials recycling. Their mission to develop “materials for a better life” has been fundamental in their journey to become an industry leader in sustainability.

**Umicore employs around 11,000 people around the world across its 47 production sites and 15 R&D Technical Centres.**

## Umicore at a glance



## Revenues

€ 3,239m

## Clean Mobility & Recycling

77%

of revenues

## R&D expenditure

7%

of revenues

Image from: <https://www.umicore.com/en/about/umicore-at-a-glance/>



# UMICORE'S IP MANAGEMENT OBSTACLES

Umicore's truly global presence is key to its significant business impact. However, from an IP sharing perspective, this global presence naturally led to decentralised information storage.

As a highly innovative, globally operating organisation with dedicated information professionals located all around the globe, the need for a shared knowledge management solution was clear.

Umicore wanted to facilitate knowledge sharing within multiple business units across borders. So, they embarked on a mission to increase IP awareness across the business by exploring possible tools to suit a range of IP needs.

The diverse user groups at Umicore operating across borders posed a natural hurdle. How could one packaged solution possibly suit the needs of users with varying IP expertise, business functions and backgrounds? On top of that, the solution would need to cater to the specific needs of each business unit.

Each business unit at Umicore followed its own process for IP monitoring and patent evaluation. This led to patents being stored in different archives and evaluations often taking place on static Excel sheets. The method was unsustainable. There was no way to tell who had looked at which pieces of information and when, and locating archived records was near impossible. The demand for a collective solution was reaching a critical point.

# THE KNOWLEDGE MANAGEMENT SOLUTION

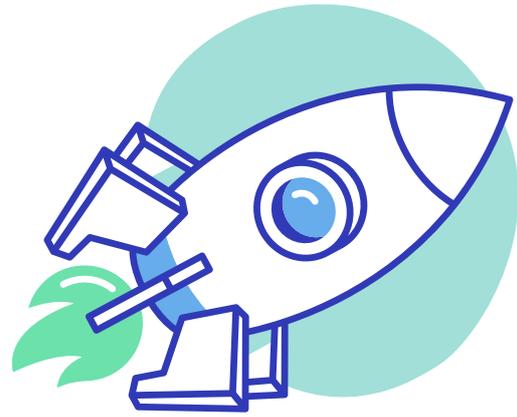
Rather than maintaining siloed IP processes across the organisation, Umicore implemented Minesoft's Pat-KM solution to centralise, store and disseminate key patent records.

An IP knowledge management solution supports searching and monitoring patents, organising a dynamic workflow for managing new patents, delivering custom categorisations for specific business units, search and analysis of all archived patents, and managing user access.

Implementing this single bespoke solution has allowed Umicore to stay on top of their patent portfolio, monitor competitor activity and draw meaningful conclusions from their patent archive so that they can dedicate more time to the business-critical R&D and innovation efforts.



# THE METHOD



## Phase 1: Exploration

Once it was agreed by the key stakeholders at Umicore that an IP Knowledge Management Solution was needed, the first step in their journey was to screen possible suppliers. Umicore explored several options, signing up for demonstrations and presentations from multiple solution providers.

At the time, Minesoft was already a known patent solutions provider, as some patent researchers at Umicore were already using Minesoft's global patent search engine, PatBase. Minesoft's Pat-KM is a Knowledge Management solution that can be integrated with PatBase, combining all of the existing search and analytics tools, legal status information, citation tools, machine translations etc. with a customisable categorisation and alert system overlay. It was logical for Umicore to consider Pat-KM which could integrate with an already familiar patent search and analysis platform.

## Evaluating Pat-KM

Minesoft delivered a free demonstration of Pat-KM. The early-stage demo ran on a simulated Pat-KM account to present some of the possible options for categorisation, alerting and searching. The solution itself is highly customisable and can look dramatically different depending on the needs of the users.

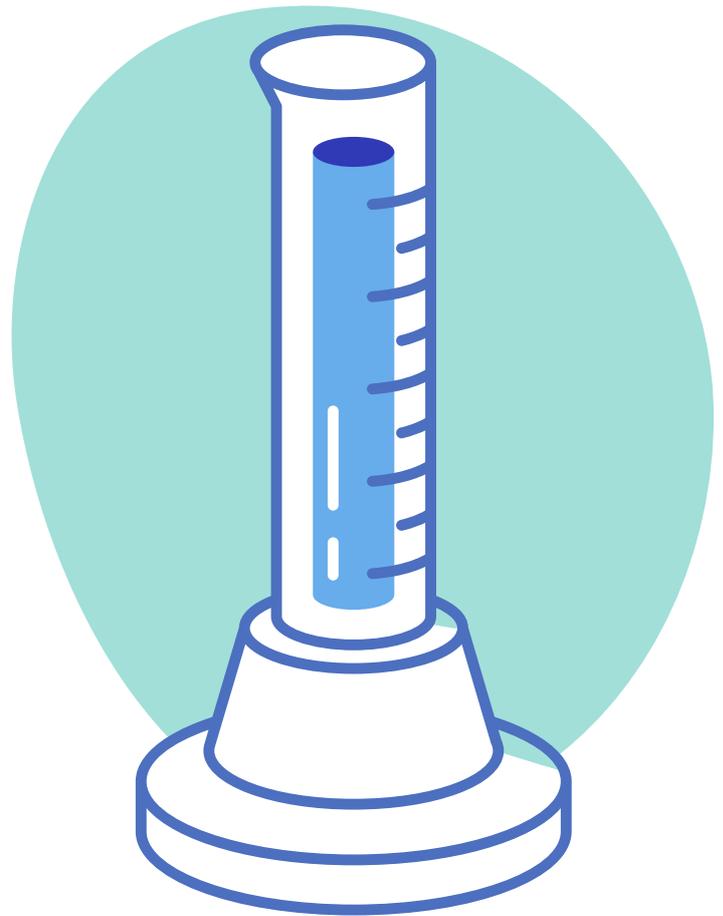
Minesoft dedicated a team involving IT, Customer Support and Project Managers to work with Umicore's key stakeholders. This process was led very successfully by Jochen Lennhof, Managing Director of Minesoft GmbH, who has over 15 years of experience in the patent information industry. In good hands, Umicore's key decision-makers decided Minesoft's Pat-KM was the best solution to move forward with after exploring their specific needs and possible outcomes.

# Phase 2:

## Set Up

Key stakeholders at Umicore were asked to join the initial set-up phase. This next step involved some intense technical discussions between Umicore and Minesoft to define all the required features within Umicore's knowledge management solution and explore what is available in Pat-KM.

In this phase, there were 3 core elements of Pat-KM to explore: Data Fields, Workflow and User Permissions.



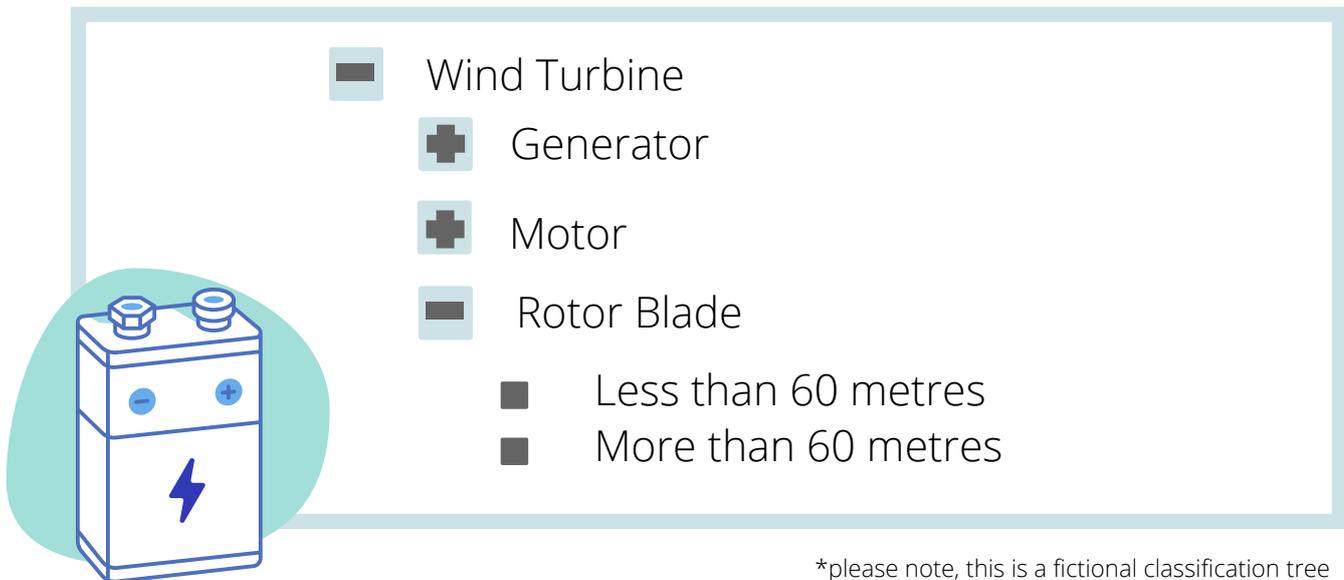
## 1. Creating Custom Data Fields

Custom fields are created in Pat-KM to enable tagging and archiving patent records with a personalised categorisation system defined by the organisation. Data fields can be designed based on the type of input values required by users.

For example, a drop-down selection menu offers a list of pre-defined options. Alternatively, a textbox can be created in Pat-KM for users to enter free-form comments or notes.

Classification trees are a popular choice within Pat-KM to organise classifications by business unit or user group. A hierarchy of categories appears in a collapsible tree, simplifying tagging records with the right information. Trees can be divided by permission levels so that individuals or teams will be able to search, display and edit their assigned tree(s) but not another team's, preventing any mix-up or accidental overlap.

## An example classification tree



## 2. Defining a Uniform Workflow

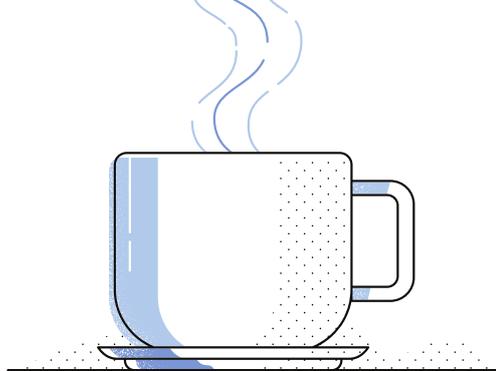
Data can be added to the Pat-KM archive via alerts or on an ad hoc basis from search results. Pat-KM integrates fully with the global patent database, PatBase. As such, Pat-KM workflows can involve PatBase searches to discover patent documents on an ad hoc basis.

Patent researchers can utilise any of the easy to use PatBase search forms to search for keywords in the patent text, Assignee names or other types of patent data to find and review relevant patent records. These records can be optionally redistributed to Inspectors, who receive a notification of this record via email, and can assign relevant inspection fields to the patent record.

Another option is to set up automatic alerts that disseminate information effectively throughout the corporation. Alerts can be set up to notify a select group of recipients via email of any new publications or families of interest added to the database. Alerts run weekly or monthly. Pat-KM alerts push relevant new records through pre-defined workflow and inspection processes, ensuring there is a consistent workflow followed by everyone in the organisation.

Once the records have passed through the inspection process, they are easily trackable using the Pat-KM search form.

# 3. Assigning Individualised User Permissions



User permission levels are also defined at this stage. Choose to hide, grant read-only, or read and write access to specific user groups. Limiting field permissions and visibility to only users or user groups by area of expertise creates a tidy workflow free from unnecessary “noise” from other departments.

There are 3 general user types in Pat-KM:

- **End Users:** These users can see inspection fields that have been enabled for them.

- **Inspectors:** These users can see and edit inspection fields that have been enabled for them, perform reviews and inspections, create ad hoc inspections, and update records from within search results.
- **Administrators:** These users can access all parts of Pat-KM, PatBase and PatBase Express. They can access all inspection fields and manage Pat-KM Alerts along with all Inspector and End User functionality.

Below is an example of a Pat-KM User Group setup table.

## Group Name: End Users

FIELD NAME	SHOW IN SEARCH	SHOW IN RECORD	SHOW IN INSPECTION	SHOW IN EXPRESS SEARCH	SHOW IN EXPRESS RECORD
CODE	✓	✓	✓		
BUSINESS UNIT	✓	✓	✓		
IMPORTANCE		✓		✓	✓
COMPETITOR	✓	✓	✓	✓	✓

\*please note, this is a fictional group set up

# Launching the Pilot Phase with Umicore's First User Group

Throughout the set-up phase, there was involvement from several first-adopters at Umicore and consultants, technical and support team members from Minesoft assisted every step.

The Minesoft Account Manager and support team offer unlimited support to help new users comfortably transition to Pat-KM. Once the pilot phase with the first user group was launched, first-adopters at Umicore were asked to report any issues or feedback to the Minesoft technical team, creating a direct and efficient feedback loop.



## Phase 3: Implementation and Roll out

### Refining all Classification Trees

In this stage, Umicore and Minesoft implemented the final version of the solution. From a technical standpoint, this required Umicore to (mostly) finalise their classification trees. From the pilot program feedback, the first users initiated small updates to some data field and classification tree labels, which were discovered to be unclear or unused by the key user groups after testing.

Umicore had to agree on the final classifications and keywords at this stage to mitigate wasted efforts and confusion once the system was rolled out to the whole organisation. Though, there was still room for some flexibility to edit any fields when more users began using the system and providing feedback to Minesoft.

Minesoft's Pat-KM was the right tool for Umicore because it allowed them the flexibility to create a custom solution from the start. Pat-KM provided a foundation that would support their needs to improve patent knowledge organisation across the whole company, while also being adaptable to when more IP related projects or use cases are created internally.

## Migrating Legacy Data

Umicore needed some legacy data migrated into Pat-KM from the disparate workflows used before. The Minesoft team helped Umicore map their legacy data to the new values created in Pat-KM using Excel templates.

Even when there were instances of fields names from the historic data not matching the new fields, Umicore could simply provide a list to map old to new field names that would replace the legacy data when imported into Pat-KM. This process helped Minesoft efficiently import all of the necessary legacy data before the solution was rolled out to the rest of the organisation.

## Implementing Single Sign-On (SSO)

To further streamline the adoption of Pat-KM within Umicore, they made the strategic decision to set up Single Sign-On (SSO) internally. SSO allows users from the same organisation to sign into a platform using their corporate log-in. This makes setting up users and granting access super-efficient from a management perspective.

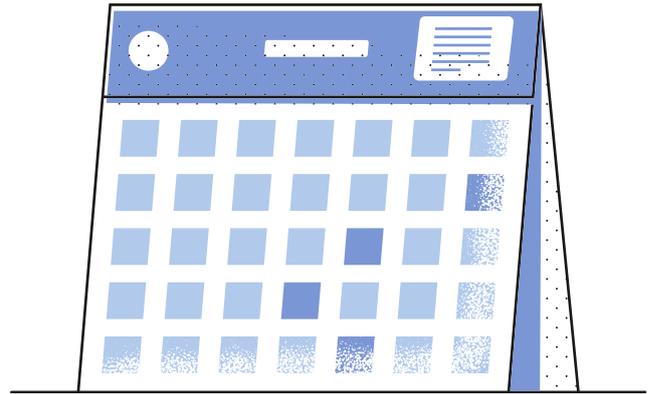
SSO can also be set up with IP verification so that anyone accessing from a specific IP address (for example, a corporate office) can be verified on the system immediately. The company firewall protects access to Umicore's IP knowledge management solution, so only activated users from inside the company are allowed. SSO is a fast and secure login solution for managing permission to highly confidential information.



# Unlimited and Ongoing Training from Minesoft

Umicore aimed to get their departments across borders smoothly transitioned to Pat-KM from whichever workflow they were used to in their previously closed IP archiving system.

To introduce this new solution, Minesoft offered technical solutions such as SSO so that new users could get acquainted with the system quickly and easily. Umicore introduced 300 new users at once, so this was no easy feat. To facilitate this move, Minesoft also offered unlimited and ongoing training and support for all users.



The training involved team Skype calls and in-person sessions with the Minesoft support team to ensure users had the opportunity to see a demonstration of the solution, receive top tips for using the solution and ask any questions or provide feedback to Minesoft directly.





# Finalising the IP Workflow

The aim of implementing an IP Knowledge Management solution within Umicore was to overcome geographical and cross-business unit barriers to IP knowledge sharing and organisation. Pat-KM solved Umicore's business needs by delivering a workflow that works across the whole organisation.

Personnel who are interested in monitoring new publications or patent families related to specific technology areas or competitors now receive patent records directly to their inbox through Pat-KM Alerts. Reviewers can search using any of the patent search tools available in PatBase to locate patent

documents of interest ad hoc since Pat-KM integrates seamlessly with PatBase. These records can then be optionally redistributed to Inspectors who receive the patent records in their inbox and assign the custom classifications in the classification tree or add other values into the data fields set up to suit the various user needs.

Once these records have been reviewed, they can be quickly and easily located and used when needed, as the classifications and values can be searched in Pat-KM. This historical archive of Umicore's project-specific IP knowledge will help them in the future to fully utilise patent data for strategic decision-making and innovation.

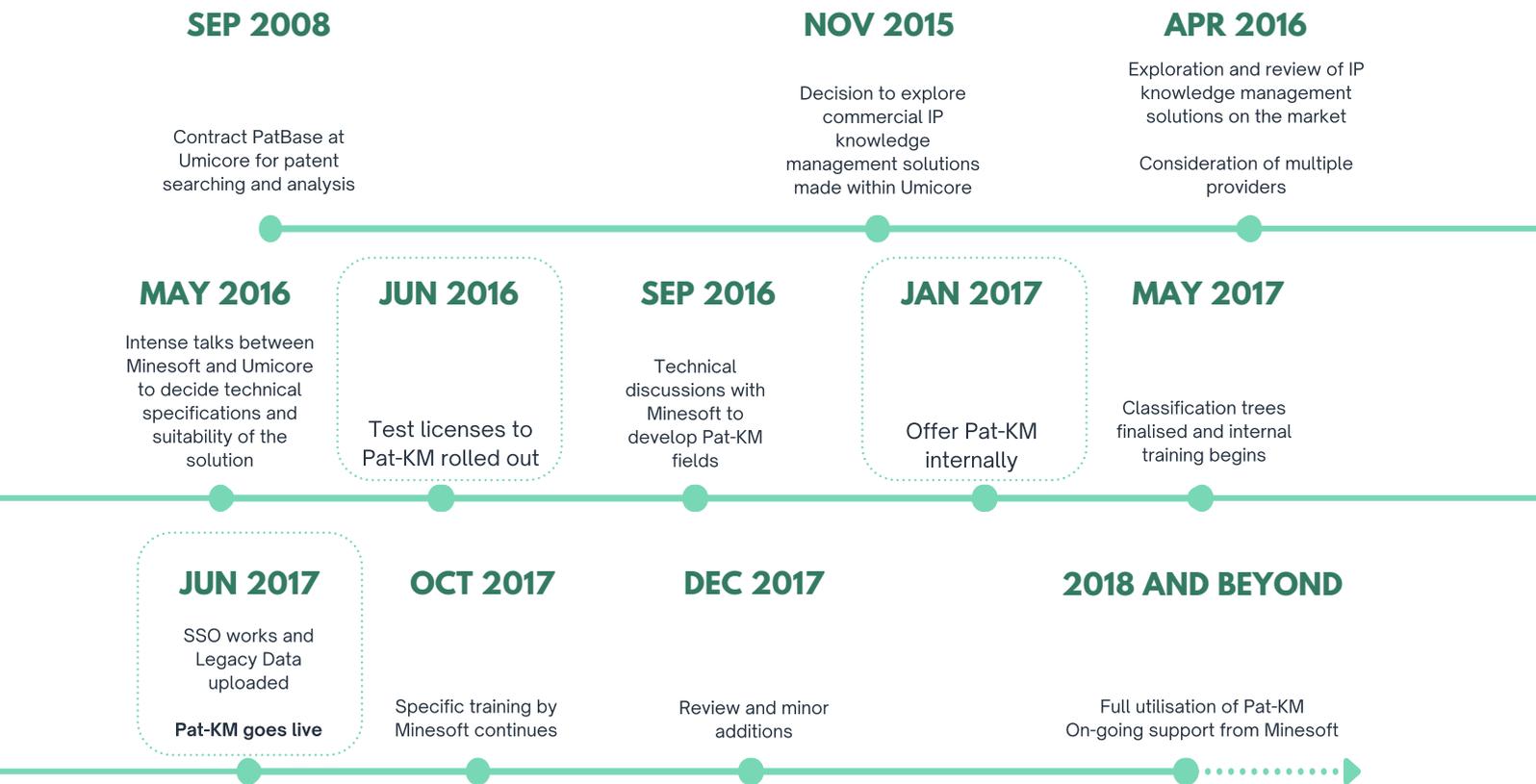
# ADOPTION OF THE IP KNOWLEDGE MANAGEMENT SOLUTION INTERNALLY

The full rollout of Minesoft's Pat-KM within Umicore took about 18 months. Umicore took their time to roll out the solution because of the necessary involvement of various business units across countries. Implementation of Minesoft's Pat-KM usually takes on average 2-6 months.

The involvement of key users from various business groups and the customisability of Pat-KM was imperative to ensure user buy-in and acceptance of this organisational change at Umicore. Implementing an IP Knowledge Management Solution within a multinational corporation across business units with very diverse and specific needs will unquestionably be a challenge. However, Umicore managed their team's expectations very well, communicated with users why the change was important and collaborated closely with the solution provider, Minesoft, to ensure the final solution fits the needs of all users through test multiple iterations of the solution, keeping open lines to feedback and providing ongoing hands-on training.



# Implementation Timeline



## ONE YEAR AFTER IMPLEMENTATION...

The IP Knowledge Management solution was a marked success within Umicore. IP awareness was up, enabling more teams and projects to benefit from this source of technical and market information. IP expertise grew across the organisation. There was high acceptance and usage of the platform, indicating that the importance of IP research across the organisation was well communicated and received. There was increased cooperation across borders. Teams were able to work remotely across international borders in a much more collaborative way since they no longer had to work with siloed patent information or untraceable workflows.

One year later, the person managing the IP Knowledge Management solution within Umicore was able to hand over administrative tasks and responsibility to their successor.

# WHO WE ARE

Minesoft is a leading global patent solutions provider. Minesoft's Pat-KM delivers a customisable IP Knowledge Management Solution for companies of any size. Capture, share and store business-critical patent knowledge in one secure and centralised location, accessible across borders and business units. Encourage IP awareness across a diverse group of users with any level of existing IP expertise.

**Contact Minesoft to register for a free Pat-KM consultation.**

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