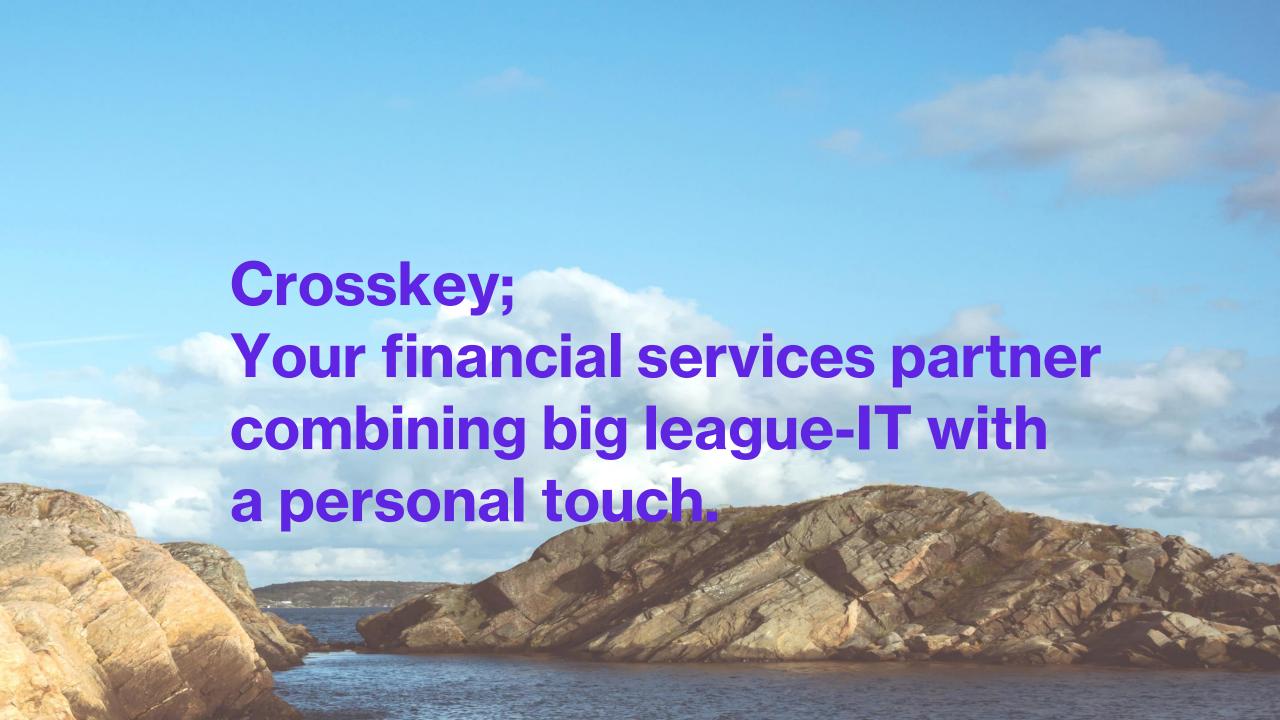
% Crosskey



Offices in Mariehamn, Helsinki, Stockholm and Turku.



Fully owned by Ålandsbanken





A strong experienced team of 250 persons



Successfully onboarded new customers since 2004

More than 3 Million end users using our systems and services

2018
Revenue: 33 MEUR
Profit: 2 MEUR



Growing, step by step

Strong personal relationships

Systems & services

Sustainable development

Our customers























Open Banking New channels Extended sales reach Value-adding PSD2 services **Dedicated** Interface **Loyalty programs FinTech** partnerships **New business** models

Open Banking vs PSD2

- our view

Revised Payment Services Directive (PSD2)



Crosskey's Open Banking - C°OPEN

- Cloud-based open service platform for banks, financial institutions and fintechs
- Flexible outsourcing solution for banks that are required to provide secured access to payment accounts for third party actors according to PSD2
- Acts as a PSD2 firewall; protects banking systems from external threats,
 and protects customers' funds and data from unauthorized use
- Accelerator in Multi-Banking hiding integration complexity for any stakeholder that wish to undertake a role as an AISP, PISP or CBPII
- Facilitates additional, commercialized Open Banking services that enable functionality beyond the PSD2 requirements, offering active business development opportunities
- Works as a services market place for both banks and third party actors
- Based on open industry standards and best practices
- Lowers costs and reduces complexity for all parties involved





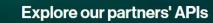
Case 1

From partner API Market -> HUB for all bank API

www.crosskey.io



An API marketplace connecting banks, fintechs, service providers and developers with value-adding data, channels, functionality and opportunities.















SIGN UP NOW



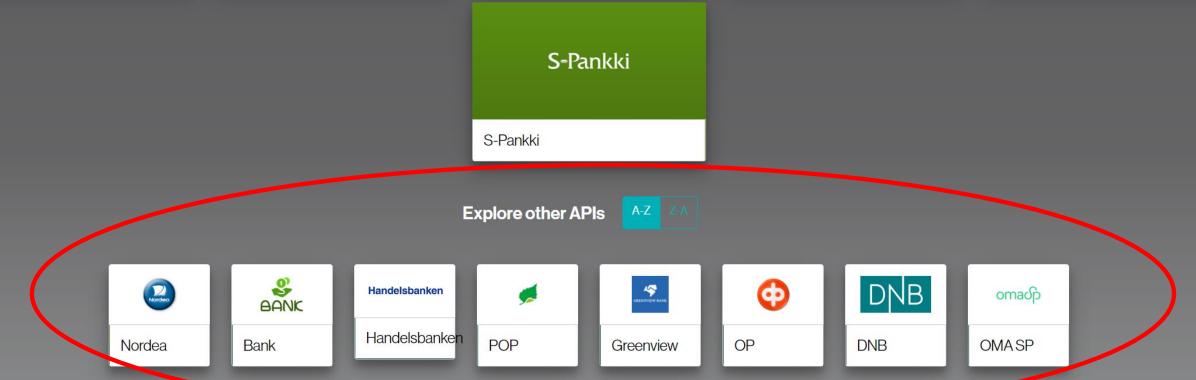
Explore our partners' APIs











Case 2

Develop next level PSD2 API testing client/tool

Fintech Demo App This is an example TPP application that will request access to your accounts, account transactions and initiate payments on your behalf.

initiate pay			
Impersonating your own client Enter your application information from Developer Portal your browser for later use.		to save this info	rmation in
onfigure your app		your application. You can also choose to see	
onliquie	and press continue to impersonate	your or	
Impersonating your own client	fields below and possible fields below and possible fields		
Impersoria	at live client sett	ings.	
Enter your application into a policy of the provided the second of the s	API's', demo app will load default "		
Enter your application information from Developed. Enter your application information from Developed. Your browser for later use. Running live default client By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the form fields empty and selecting 'Use Live By leaving the fields empty and selecting 'Use Live By leaving the fields empty and 'Use Live By leaving th	uinds.		
By leaving the form fields empty and selecting by leaving the form fields empty and pressing conting by leaving the form fields empty and pressing conting by leaving the form fields empty and pressing conting by leaving the form fields empty and pressing conting by leaving the form fields empty and pressing conting by leaving the form fields empty and pressing conting by leaving the form fields empty and selecting by leaving the form fields empty and pressing conting by leaving the form fields empty and pressing conting by leaving the form fields empty and pressing conting by leaving the form fields empty and pressing conting by leaving the form fields empty and pressing conting by leaving the form fields empty and pressing conting by leaving the form fields empty and pressing conting by leaving the form fields empty and pressing conting by leaving the form fields empty and pressing conting by leaving the form fields empty and pressing conting by leaving the form fields empty and pressing by leaving the fields empty and pressing	e will load default demo app settingo.	ann you want to impersonate.	
Running sandbox	authack in Developer	Portal for the app ,	
By leaving the form	rosskey.io/authorization-cando-		
Padirect URL to https://demo.open-use.			
Set your Red.			
Environment			
Current			
Language English			
Use Live API's			
030			
Client ID			
Use certificates from param store			
Use certificates item		private key	
TLS client certificate (QWAC)			
TLS client corresponding to the public certificate	10		
		private key	<i>II</i>
Digital signature certificate (SEALC)		Reset form Continue
Digital signature cerum			Reserve
Public certificate			
Cave Load Cle	ar saves		
Save			

Fintech Demo App Account Information Payment initiation International payment International scheduled payment International standing order Domestic payment Domestic scheduled payment Domestic standing order Initiated payments Confirmation of Funds Client: default Thank you for trusting us with your account information! Connected bank accounts

-nocted ba	nk accounts		Currency	Owner	Transactions Balances Details
Account Type	Account Id	EUR	John Doe	Details	
Bank Bank	Checking account	87ebb69a-4551-11e9-91ff-57a16d9eb94c	EUR	John Doe	Transactions Details
L&C Bank	Checking account	87e9d988-4551-11e9-91ff-af767f6f4e3e	EUR	John Doe	Transactions Balances
L&C Bank	Payable Credit Card	aa020f50-4fd2-11e9-91ff-03fe7d11b0f9	EUR		Transactions Balances
L&C Bank	Payable Cledit Ca	FI7473834510057469-EUR			Transactions Balances Details
Nordea		FI6593857450293470-EUR	EUR		























Handelsbanken



Recent Top Ranking in Europe

 Our offering is being top ranked as a "Top 10" solution provider in Europe by CIO Applications publication

Crosskey

Pioneering an Open Banking Strategy

obility and digitalization coupled with the demand for open, secure, and personalized banking experiences are the key drivers for the adoption of innovative financial technology within the banking industry. Banks are now looking to team up with fintech companies to yield new and better ways of banking with their customers. In order to realize the full potential of innovative fintech applications, what matters most to banks today is an open banking system that can help with integration and development of new products and services through the use of APIs.

This is precisely where Crosskey marks its presence in the Nordic region by providing a new lane to the banking industry by enabling a fruitful collaboration with fintech companies through their forward-thinking technology and innovative open banking solutions.

"We implemented open banking strategy seven years back even before there was any talk about PSD2 or open banking," remarks Thomas Lundberg, CEO of Crosskey. As a part of their open banking strategy, Crosskey took a strategic decision to tailor its systems to support open banking concepts and later developed a state-of-the-art, cloud-based, PSD2-compliant open banking integration module. "With our open banking solution, banks can access several other banks' APIs and collaborate with third-party developers to build various banking applications and services." explains Lundberg.

With our open banking solution, banks can access several APIs and collaborate with third-party developers to build various banking applications and services



the Dreams' application with the Ålandsbanken banking system, which Crosskey has developed. This made Crosskey one among the few in the Nordic markets to have effective integrations with renowned fintech players and was a pioneer back in 2016.

Crosskey's open banking platform offered as softwareas-a-service enables customers to pick and choose specific components as and when they need. The company today has overthree million end users using their bank systems' databases and peaks daily above 1.5 million monetary transactions per hour.

Elaborating on the effectiveness of Crosskey's banking platform, Lundberg cites a case study where S Group, a Finnish retailing cooperative organization wanted to launch a bank in Finland. The business-critical nature of the task demanded a partner with a deep understanding of core banking, and a system with the stability to handle large volumes of transactions. Since S Group was starting its banking business from scratch with the launch of S-Pankki, a retail bank,

Thank you!

Fraenk Andersson – Business Development Manager

fraenk.andersson@crosskey.fi

Tel. +358 40 522 3157

Sara Seppola – Application Manager Benjamin Wärnå – Application Manager



% Crosskey