

Technologies to Develop on Nokia Platforms

**MobileMonday
St. Petersburg, 19.3.2007**

Ville Kuosa

**Manager, EMEA Technical Services & Consultancy
Forum Nokia**

Forum NOKIA

NOKIA
Connecting People

The Platform Approach

Series 40 Platform

Java™ applications and content for mass-market mobile devices.



S60 platform

Java and C++ applications, as well as rich content for Symbian OS smartphones.

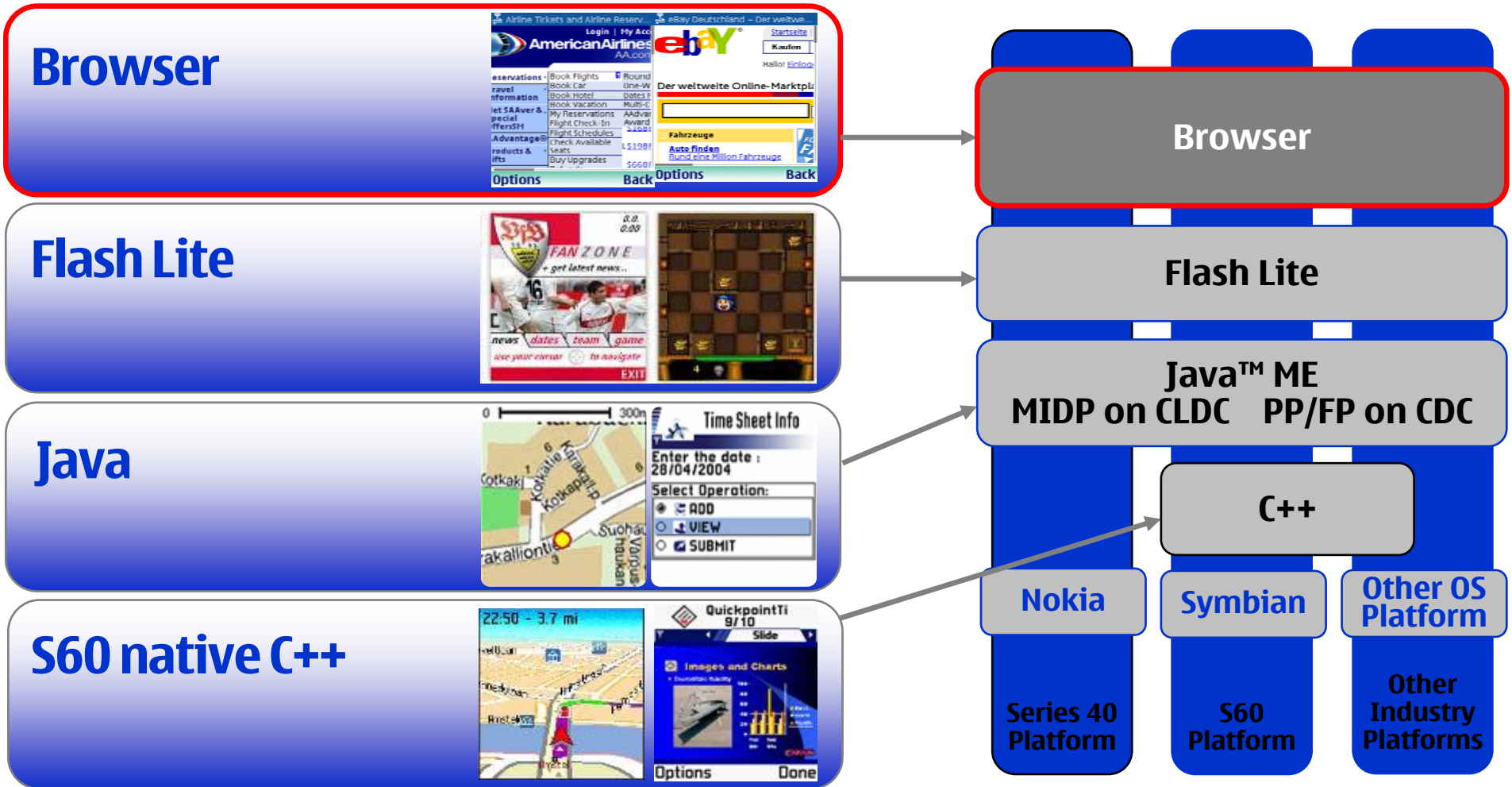


Series 80 Platform

Java and C++ applications, as well as rich content for Symbian OS enterprise devices.



Various technologies to develop on Nokia platforms



Full Web support fulfills various browsing needs

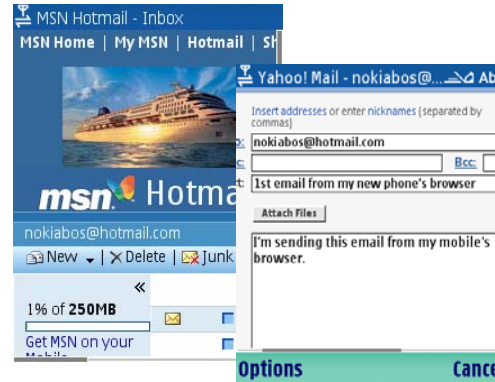
eCommerce & Banking JavaScript & SSL support



Weather



Web mail JavaScript & SSL support



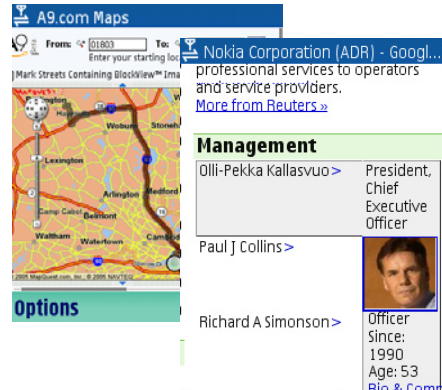
Search



News Feeds & Blogs RSS



Maps, driving directions & Finance AJAX Web sites



Sports & News Page Overview



Flight booking JavaScript & DynamicHTML



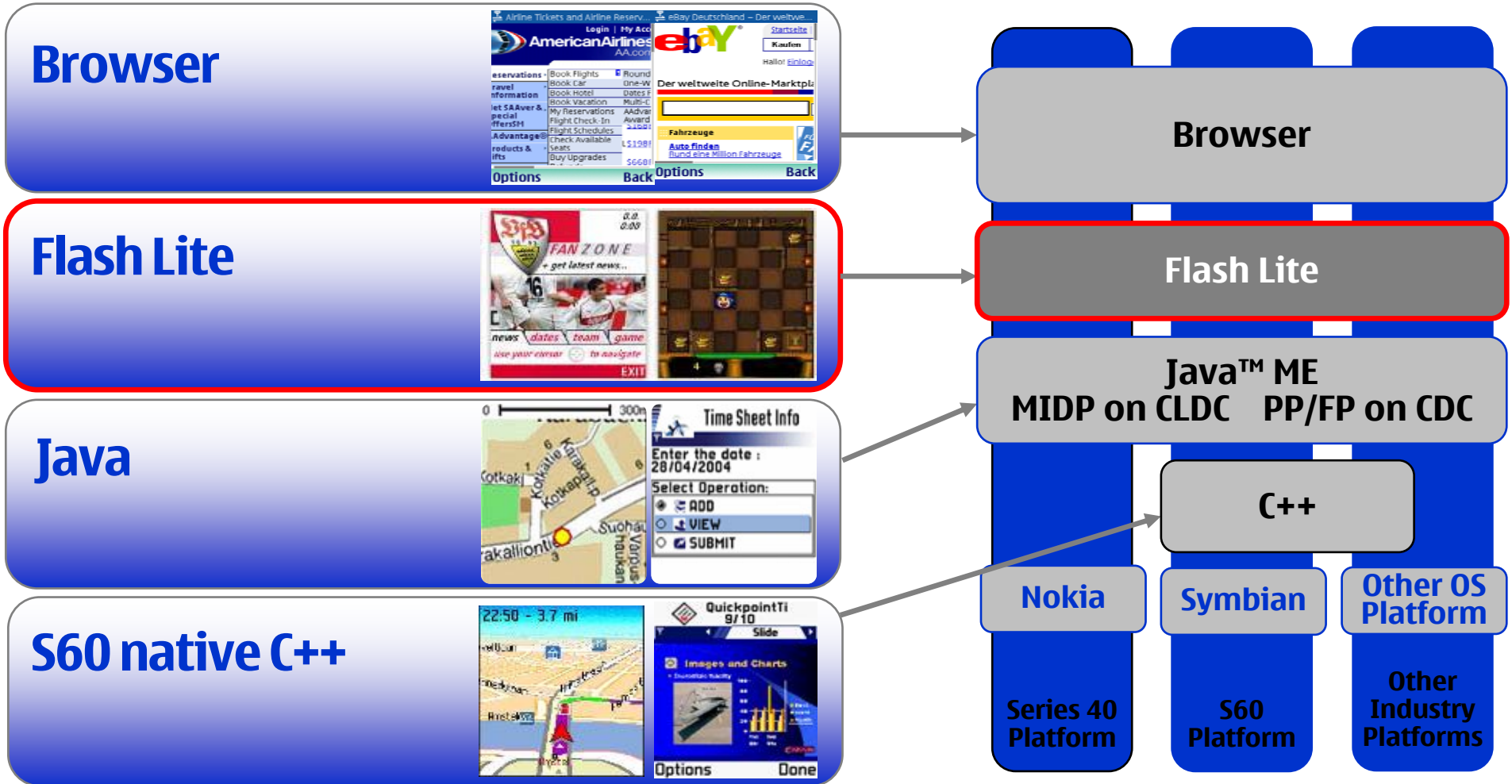
S60 Browser

- Based on best-of-breed, proven and future-proof open source components
 - Web compliance
 - Responsiveness
 - Enables many contributors
- Our focus on innovation
 - User experience
 - Mobile extensions



Next generation full Web browsing

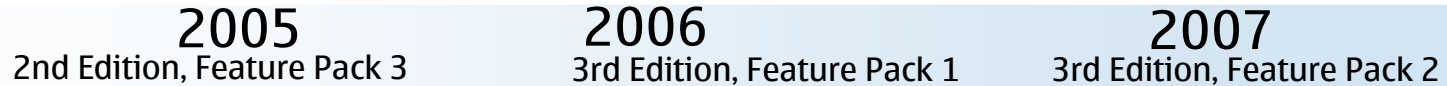
Various technologies to develop on Nokia platforms



Flash Lite™ on Nokia platforms



Roadmap



Flash Applications



Play Flash content via Standalone viewer
Flash Lite 1.1

Browsing/Internet



Play Flash internet content in browser
Flash Lite 2.0

Personalization features



Flash for personalization (e.g screensaver)
Flash Lite 2.1

Flash Lite application types:

- Standalone application
- Flash content in browser
- Wallpaper
- Screensaver
- etc

Nokia Handsets with Flash Lite 1.1



Nokia 3250



Nokia 5500 Sport



Nokia E50



Nokia E60



Nokia E61
Nokia E61i
Nokia E62



Nokia E65



Nokia E70



Nokia N70*



Nokia N71



Nokia N72*



Nokia N73



Nokia N75



Nokia N77



Nokia N80



Nokia N90*



Nokia N91



Nokia N92



Nokia N93



Nokia N93i

Series 40 3rd Edition FP1



Nokia 6125



Nokia 6126
Nokia 6131 (NFC)
Nokia 6133



Nokia 6136



Nokia 6151



Nokia 6233
Nokia 6234



Nokia 6288



Nokia 8800
Sirocco edition

Nokia Handsets with Flash Lite 2.0



Nokia E90*



Nokia 6110 Navigator*



Nokia 6290*



Nokia N76*



Nokia N95*

Series 60 3rd Edition FP1

* Not shipping yet



Nokia 3110 Classic



Nokia 5200



Nokia 5300



Nokia 6085
Nokia 6086

Series 40 3rd Edition FP2



Nokia 6300

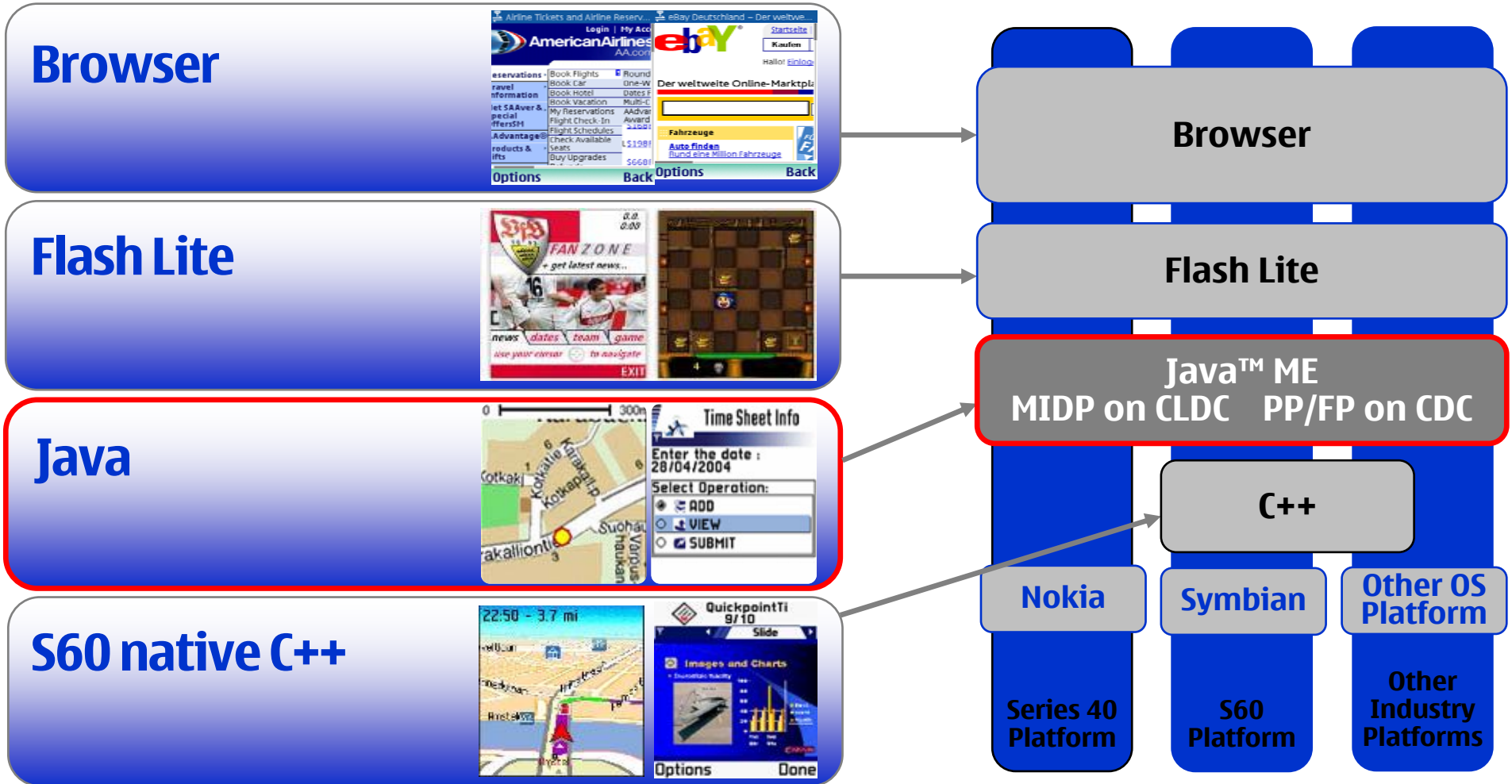


Nokia 7373



Nokia 7390

Various technologies to develop on Nokia platforms



Java Adoption= Developer Success

Installed base of Java devices



The Java™ Platform, Micro Edition (Java™ ME) **installed base is more than 1.5 billion**;* Java shipments in **2006** were almost **800 million****



Java ME technology is **deployed by more than 180 operators** worldwide on **more than 1.5 billion devices*****



Java ME is **the number one mobile application development platform******

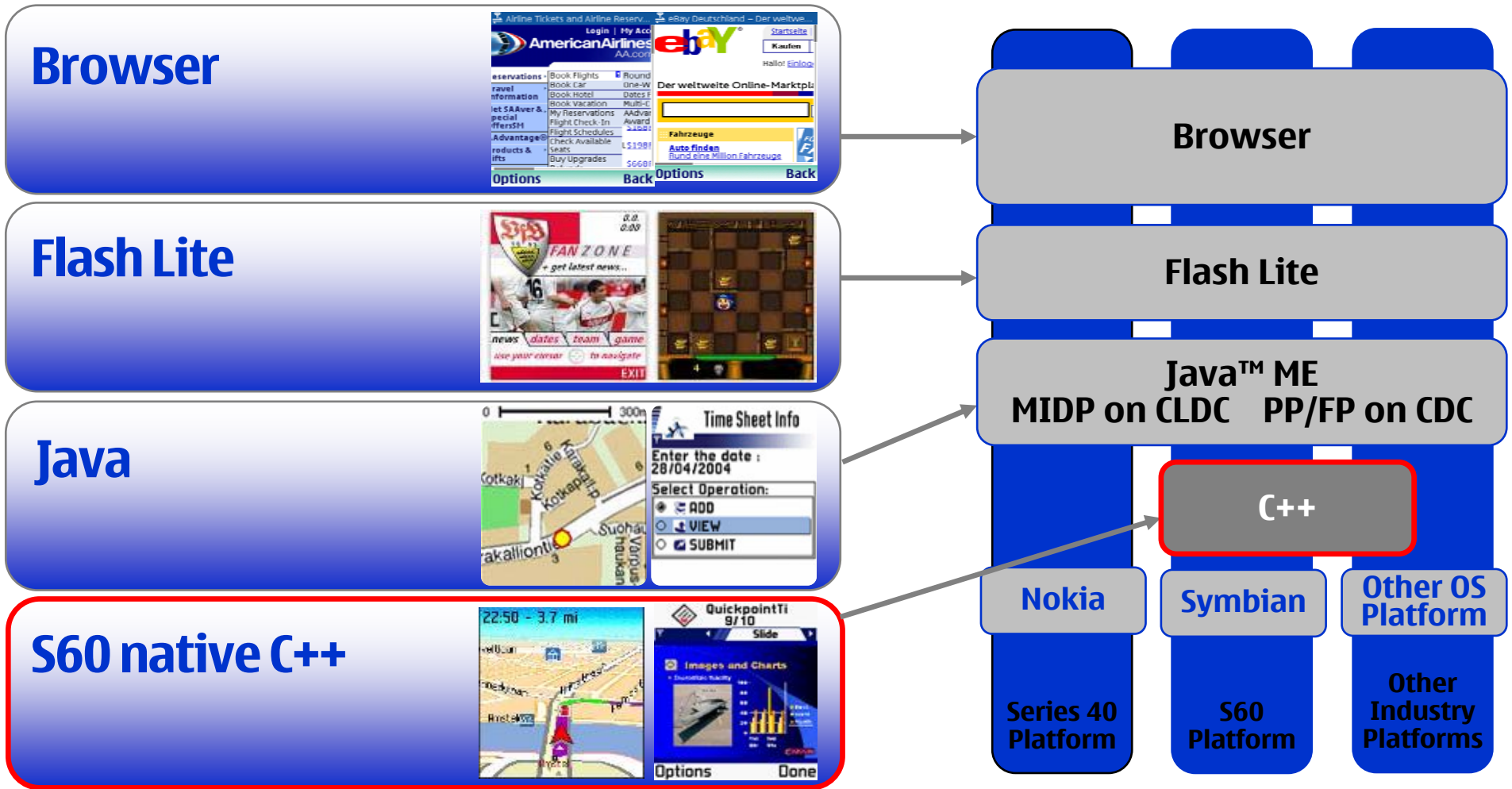
Java on Nokia Platforms and Editions

Platforms

Editions

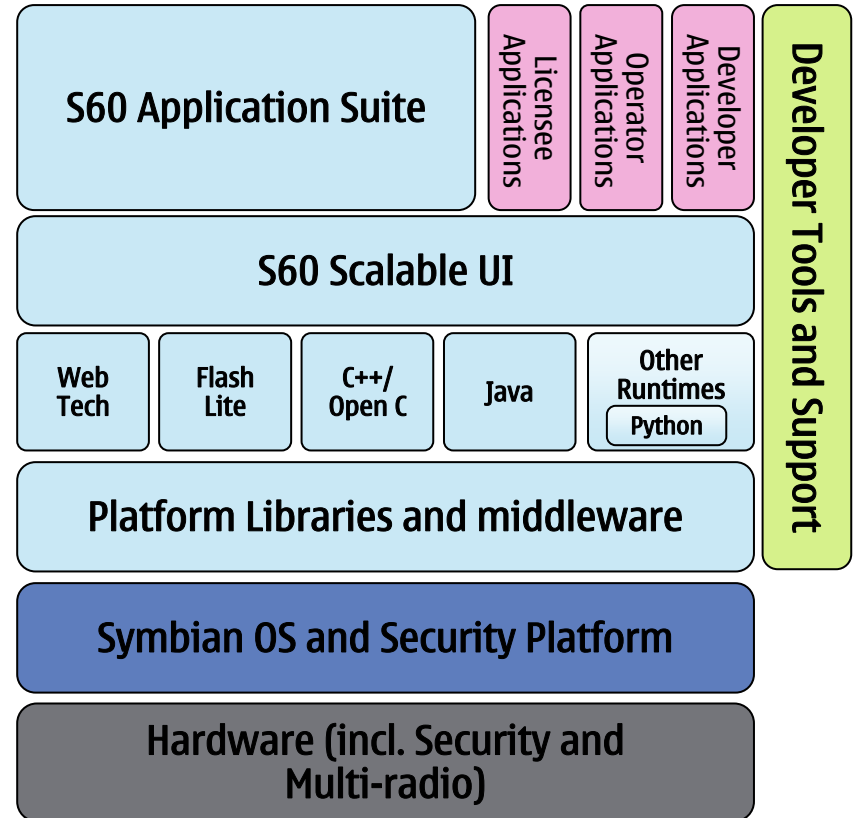
	Series 40	S60	Series 80
1 st Edition	MIDP 1.0 WMA 1.0 MMAPI 1.0 	MIDP 1.0 WMA 1.0 MMAPI 1.0 	PersonalJava JavaPhone 
2 nd Edition	MIDP 2.0 WMA 1.0 MMAPI 1.0 	MIDP 2.0 WMA 1.0 Bluetooth M3G API PIM and FileConnection 	MIDP 2.0 CDC w/ Personal Profile WMA 1.0 MMAPI 
3 rd Edition	MIDP 2.0 WMA 1.0 MMAPI Bluetooth PIM FileConnection 	SATSA Location SIP API WMA 2.0 Web Services 	

Various technologies to develop on Nokia platforms



What is the S60 Platform?

- **The leading smartphone platform**
 - Optimized for the Symbian OS
 - Rich, interworking applications
 - Customizable and intuitive user interface
 - Multiple-runtime development environment
- **Series 60 is based on:**
 - Open, standards based technologies
 - Multi-radio on multiple HW platforms



S60 3rd Edition and C++ Development Key Benefits

- Access to full potential of the platform
 - High application execution speed
 - Full access to platform features
- True Multi-tasking
 - Multi processes and threaded OS
- Different form factors
 - QWERTY keyboard, Numeric Keypad
 - Dynamic screen sizes and orientations w/ Scalable UI
- Application and OS frameworks
 - Location, SIP, Web services, and more
- Flexible Architecture
 - Polymorphic DLLs, ECOM plug-ins, Client/Server, J2ME
- Binary Compatibility across S60 3rd edition devices
 - Less testing and fast to market
 - Reduce multiple versions
 - Large installed base



S60 Platform 3rd Edition and Feature Packs

Feature Pack 2

Map Framework API
Application Interworking API
Open C as native component

Feature Pack 1

Content Listing Framework API
Profiles Engine Wrapper API
Optical Character Recognition API

S60 Platform 3rd Edition

Real-time Kernel (EKA2)
Platform Security
Application Signing
Location APIs
Web Services APIs
SIP APIs

Multimedia FW (MMF) API
OMA DRM v2 API
OMA Datasync 1.2 API
Find Item API
Bluetooth 1.2 support

S60 platform release versions are named as Editions.
Feature Packs include features that are additional to Edition.

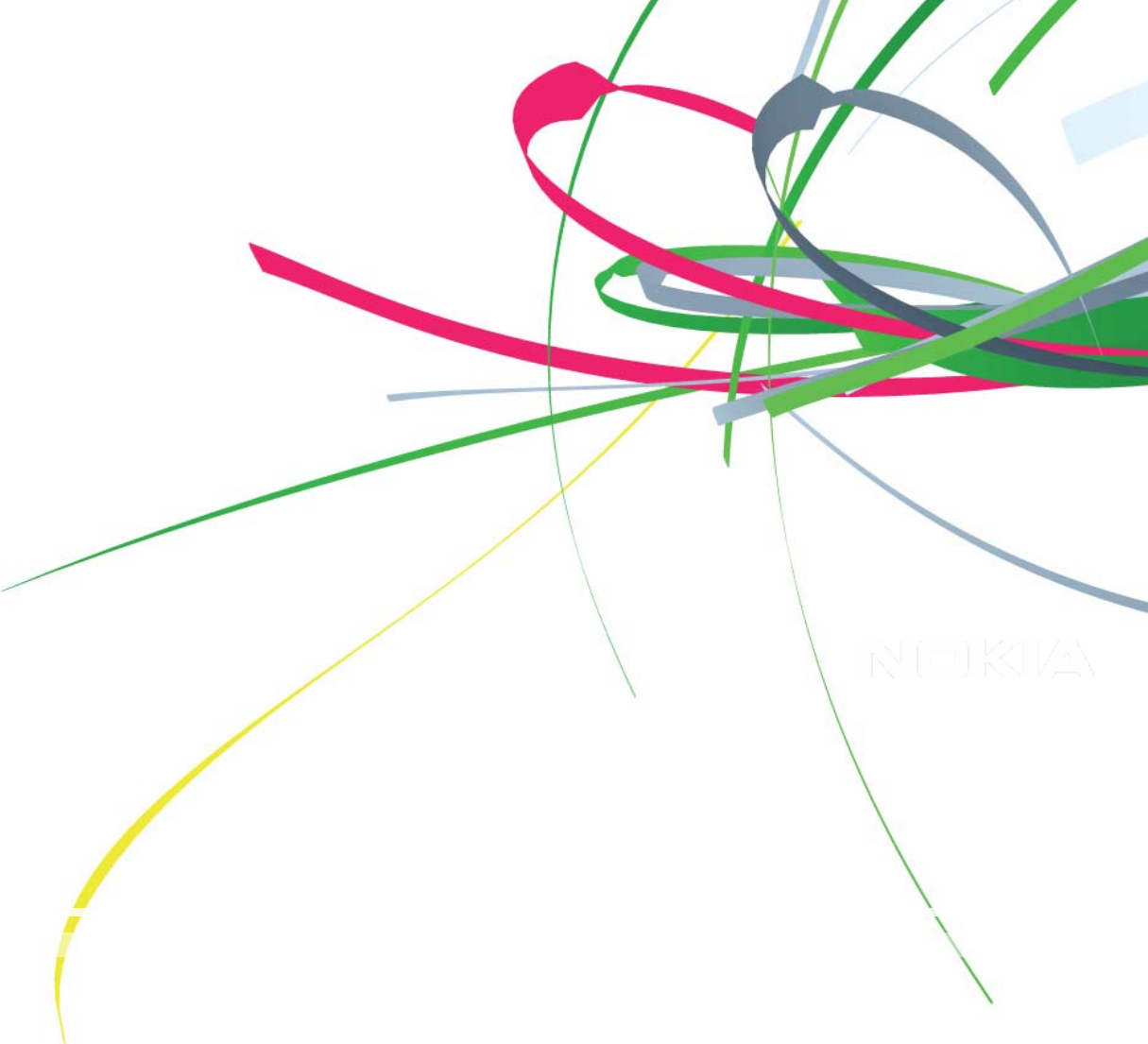
S60 3rd Edition Feature Pack 1 Devices



**E90, 6290, 6110 Navigator
N76, N95**



Conclusion

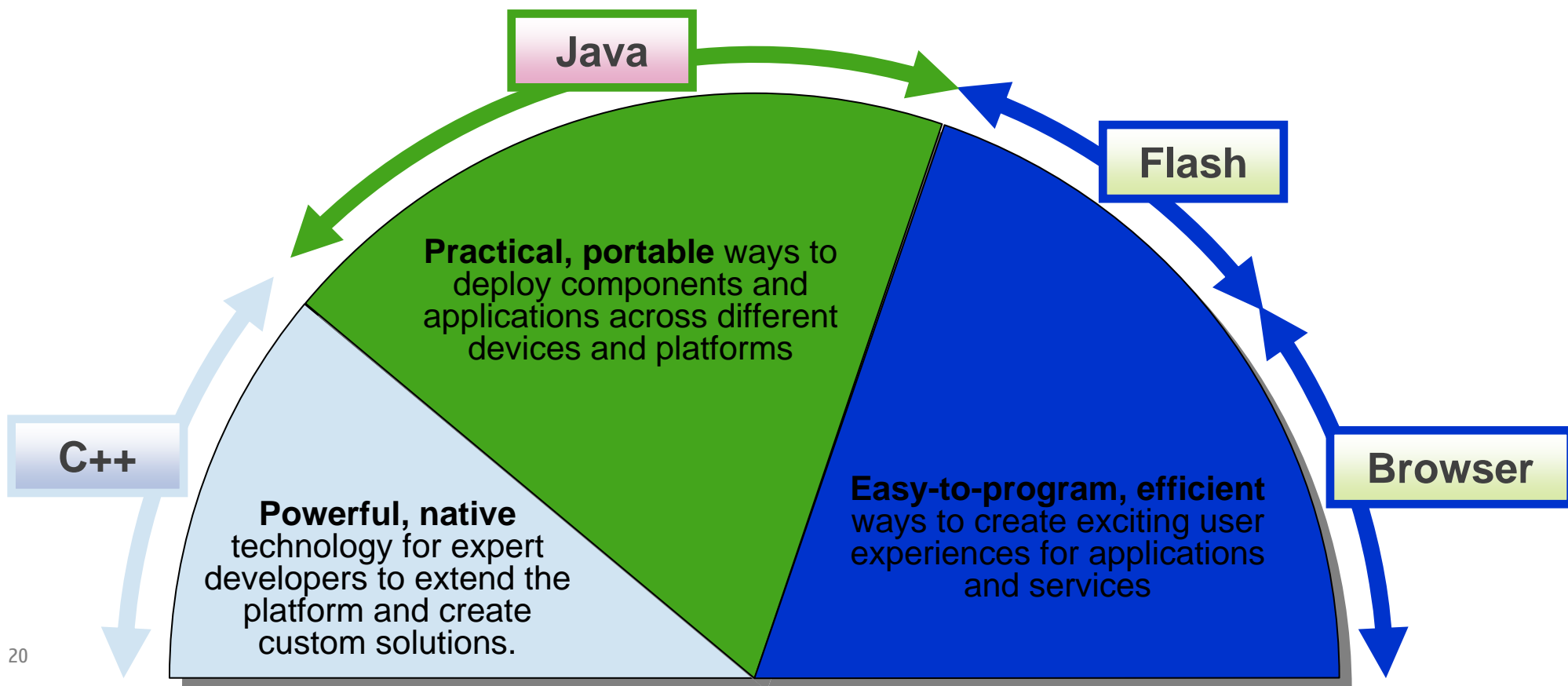


Forum **NOKIA**

NOKIA
Connecting People

Nokia offers the widest choice of runtime technologies that provides maximum flexibility to developers

Nokia has a solution that meets your requirements for features, development experience and application portability



20

How to get started and get help?

NOKIA

Forum **NOKIA**

NOKIA
Connecting People

The Web Is Our Key Touch Point

- One-stop shop for
 - Tools
 - Documents
 - Knowledge base
 - Technical Support
 - Training
 - Application Testing
 - Discussion Boards
 - Technical Consultancy
 - Access to hardware
 - and much more!

More than 3 million registrants

The screenshot shows the Nokia Forum website. At the top, there's a navigation bar with the Nokia logo, 'Connecting People' tagline, and links for 'Login', 'Register', and a search box. Below this is a banner area with three featured items: 'Series 40 Theme Studio', 'NokiaWorld 2006', and 'SNAP Mobile Client SDK 1.3'. The main content area is divided into three columns. The left column is a sidebar with a 'Resources' menu including 'Getting Started', 'Device Specifications', 'Tools and SDKs', 'Documentation', 'Technologies', 'Porting', 'Open Source', 'Technical Services', 'Technical Support', 'Knowledge Base', 'Training', 'Testing', 'Quality', and 'Usability'. It also lists 'Platforms' (Series 40, S60, Series 80) and 'Discussion Forums' (Discussion Boards, Blogs). The middle column has a 'Coming Soon' section with a 'Forum Nokia' announcement and a 'PC Connectivity over Bluetooth in Java™ Applications' resource. Below that is a 'Recently Published' section with three items, each dated 16-Nov-2006. The right column has a 'Featured Items' section with a 'Newsletter Sign Up' form, 'Privacy Policy Archives', 'Forum Nokia Blogs', 'Nokia Content Discoverer', 'Forum Nokia PRO', 'Forum Nokia Champion', 'Business Opportunities', 'Events', 'Press & Analysts', 'Application Catalogs', and 'Forum Nokia e-store'. At the bottom right, there's a small image with the text 'If you have a great idea, we can make it fly'.

www.forum.nokia.com

Forum Nokia Tech Day in St. Petersburg May 24-25

Invest a day. Get a world of knowledge!

Day 1

Market trends and vision
Mobile application design

Day 2

Mobile Business Track
Technology Track
Research and Academic Topics Track

Stay tuned for more information at www.forum.nokia.com

