

Build more with less... but how?

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Outline

- Why ... we had a problem
- What ... we decided to do
- How ... it works
- Where ... to go from here

Setting the Stage

Eurocommercial Properties

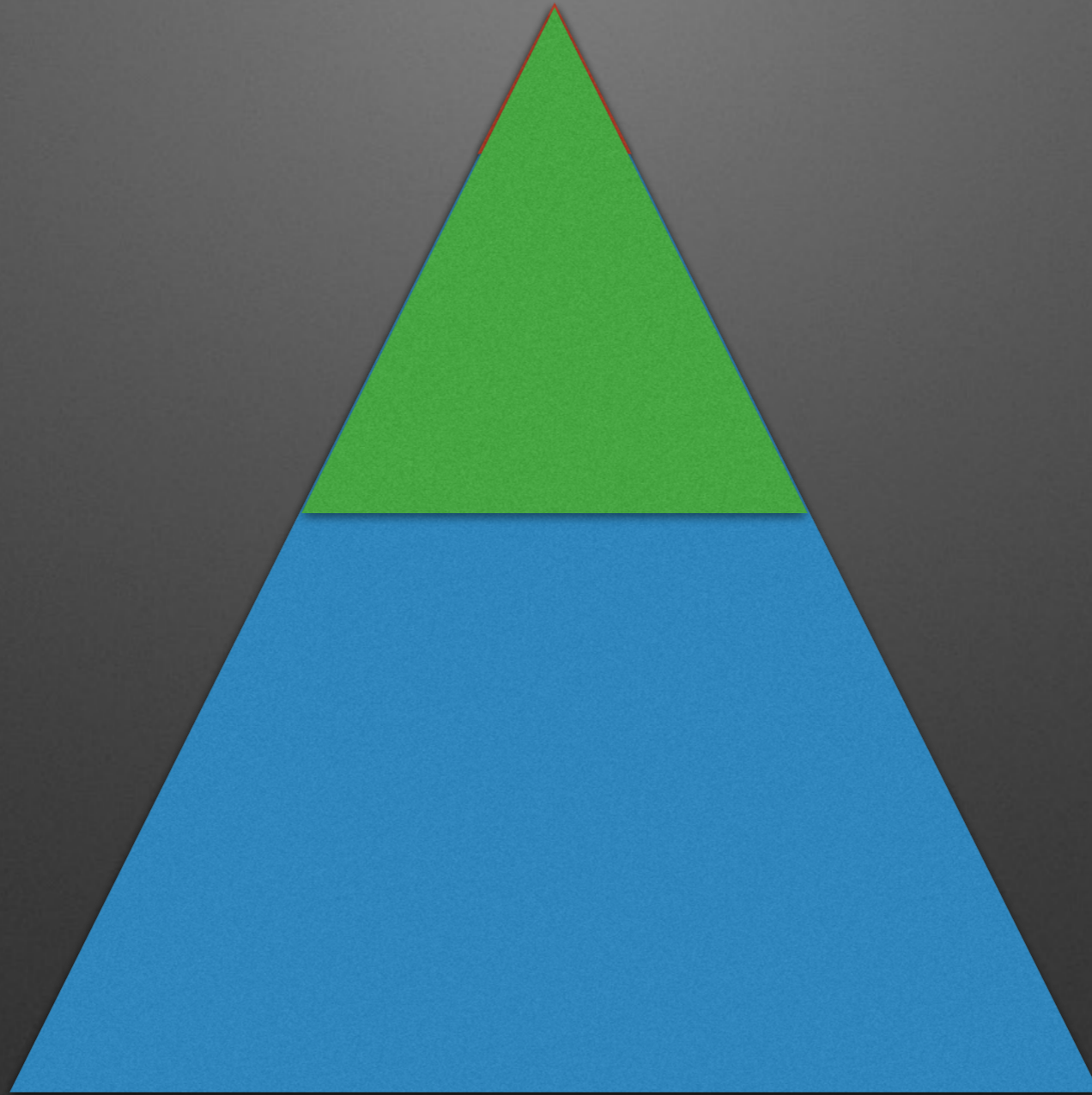
- 33 shopping centers in France Sweden and Italy
- 2.7 billion Euro asset value
- 175 million Euro annual rental income



Had bought the leading Estate Management software

- Started in France
 - was working more or less ok
- Moved ahead to Italy
 - where everything was Excel based
 - Really struggling but went into production anyway with a long backlog of issues

Problems in Italy...



Meanwhile, the IT department was “learning” from the experience

- Implementing a datawarehouse
 - got intimate with its underlying data model, 3,065 tables :-)
 - learnt about essence of property management
- Built supporting applications, stored procedures, hacks around the application
- New releases meant:
 - manual testing, regression after regression
 - “help desk hell”
- Last big version upgrade took a year to implement and in fact gave up trying to roll out

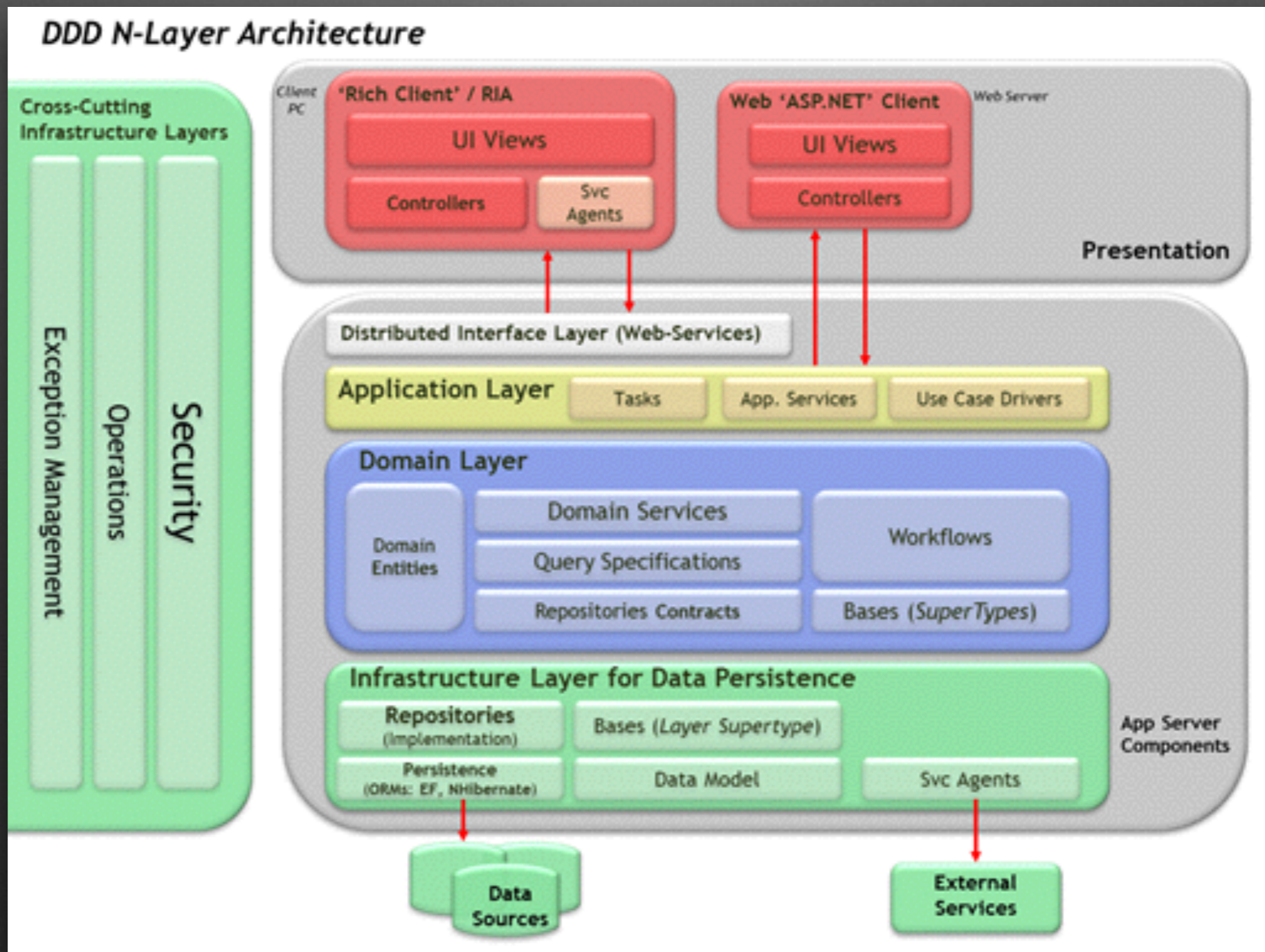
What where our options?

- Another (better?) software vendor
 - Expensive to purchase/license/implement
 - Likely same issues as current product
 - Has to support Italy, France, Sweden
- Develop a bespoke system
 - But using what?

Options for a bespoke system (not starting from scratch)

- Open ERP
 - Python, we had a preference over Java or C#
- OpenBravo
 - Wel..
- Apache OFBiz
 - Built a POC, concluded it was not agile enough and hard to test.
 - BUT: It had a great data model based on Les Silverstone's Universal Datamodel books

Microsoft's DDD N-Layer architecture



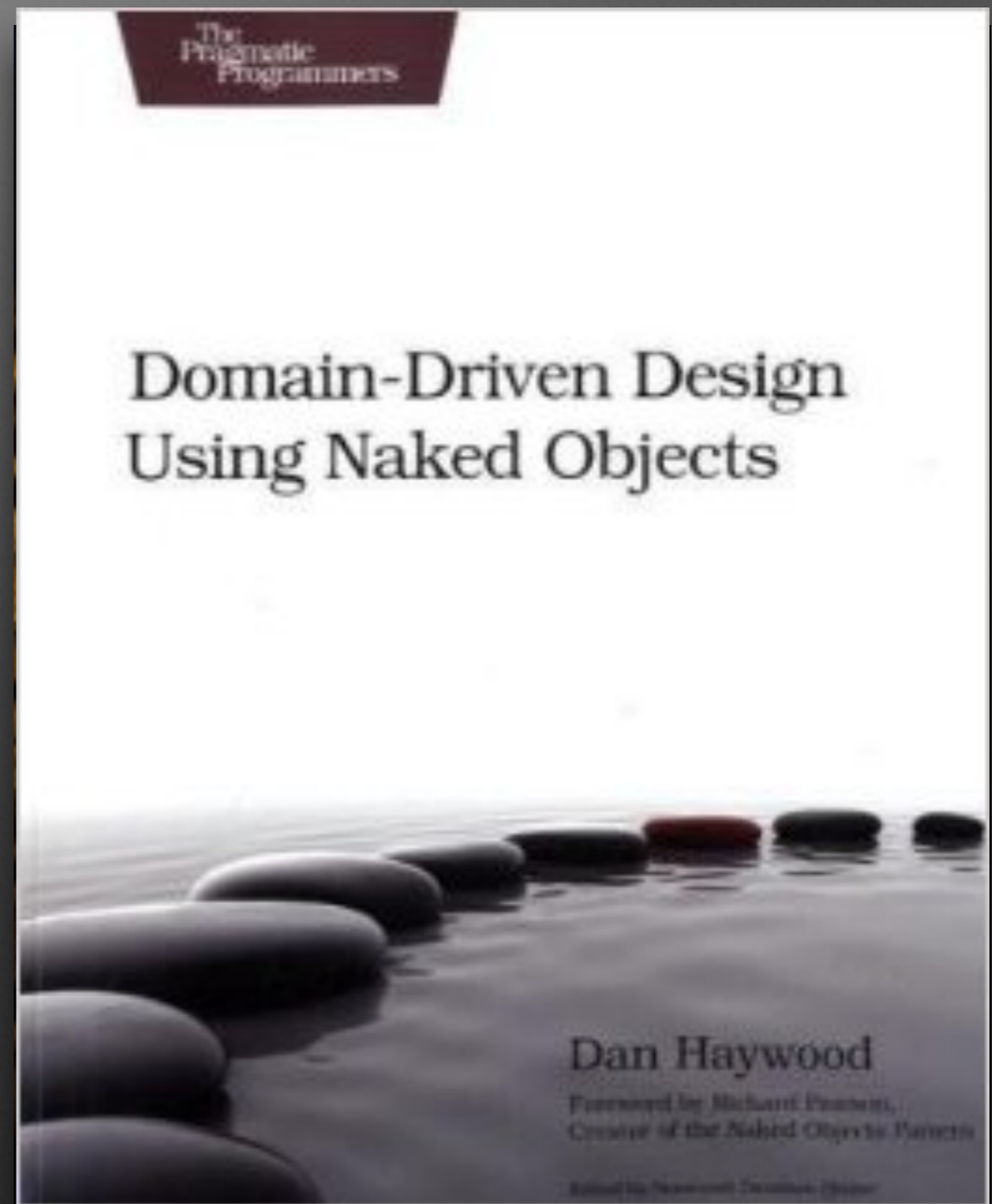
From scratch using an MVC framework

- Spring maybe?
- Lots of layers, not agile
- Scaffolding
- Maintenance burden

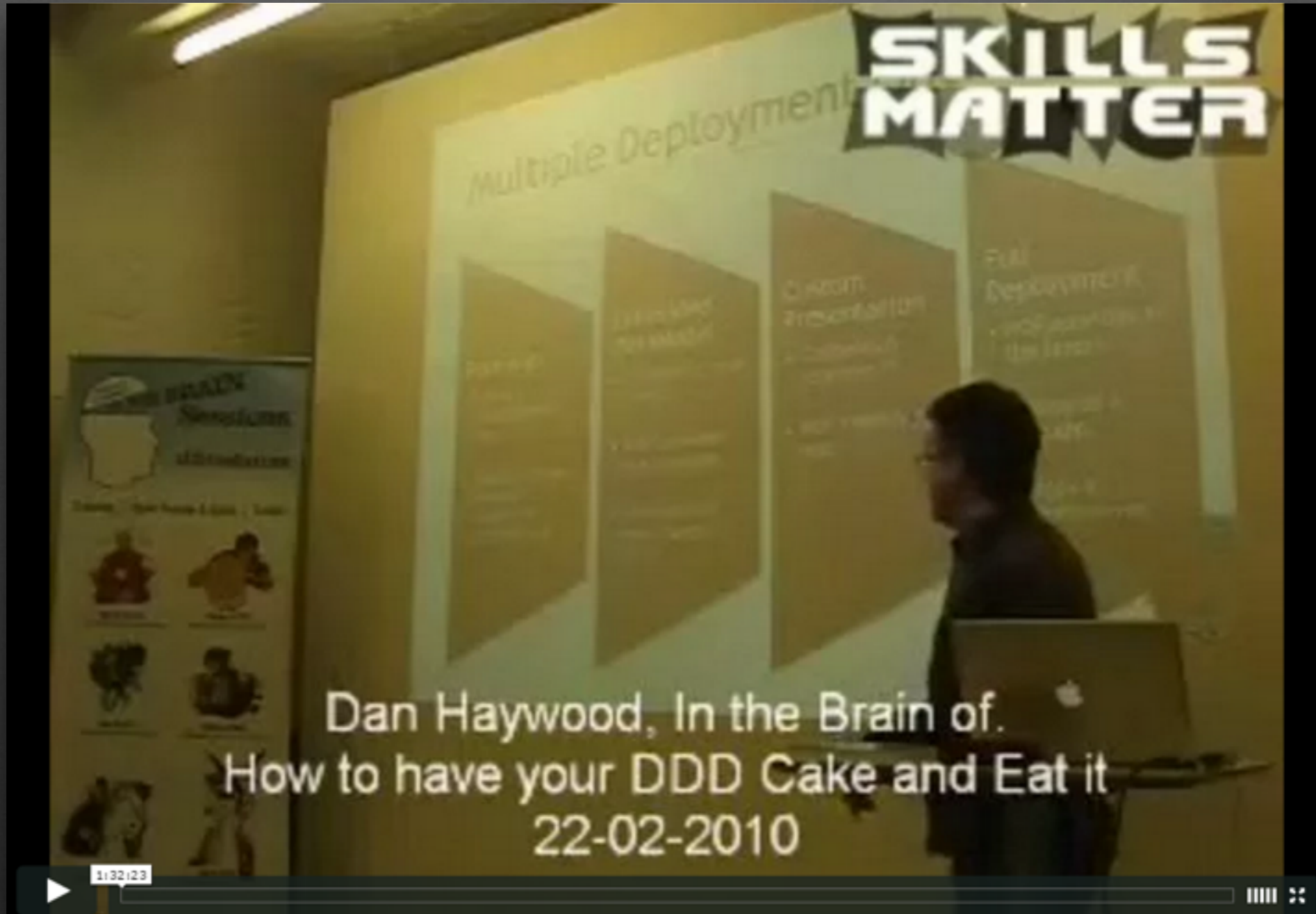


Meanwhile, I came across

- Searching for “Domain Driven Design”
- Wanted to focus on the domain
- Supporting rapid prototyping



and Bilgin came across...



Dan Haywood, In the Brain of.
How to have your DDD Cake and Eat it
22-02-2010

Naked what?



The principles of Naked Objects

Ubiquitous Language



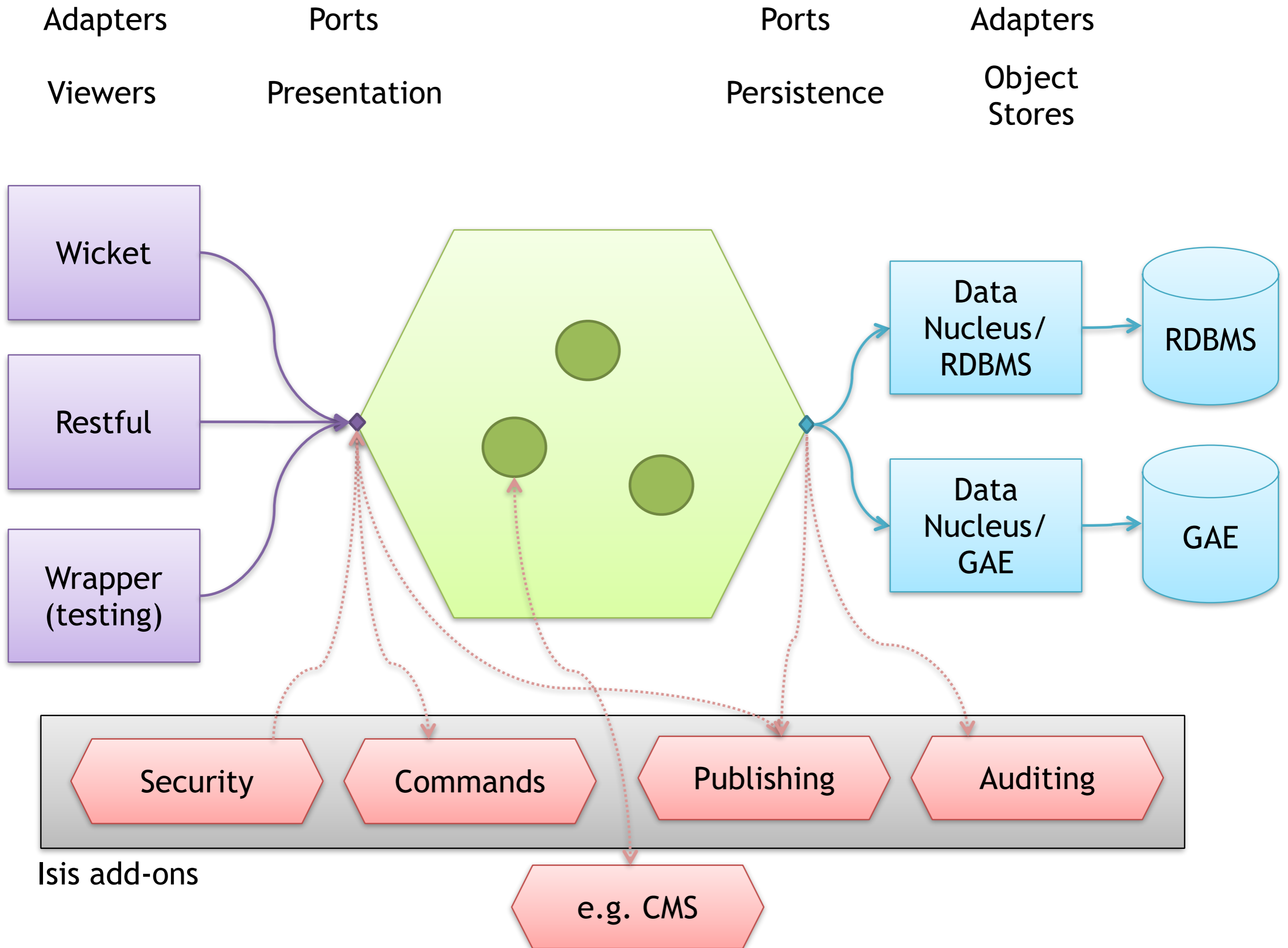
With a conscious effort by the team, the domain model can provide the backbone for that common language

The master of your domain



Demo Estatio

Isis Hexagonal Architecture



Demo Cross Cutting Concerns

Learnings: Continuous Migration

- Using the Restful API
 - Idempotent
- Show the users “their” data
 - dummy data doesn’t mean anything to them
 - language barrier

Learnings: don't use CRUD

- Started a CRUD application
 - Removed the “Edit” option
 - Created actions
- As a result
 - Forces the conversation with the user
 - Audit-able: who or what invoked which action and what has changed as a result
 - Enterprise integration: actions can be sent to the ESB
 - Can ask the user for an additional reason

The future

Roadmap for Isis

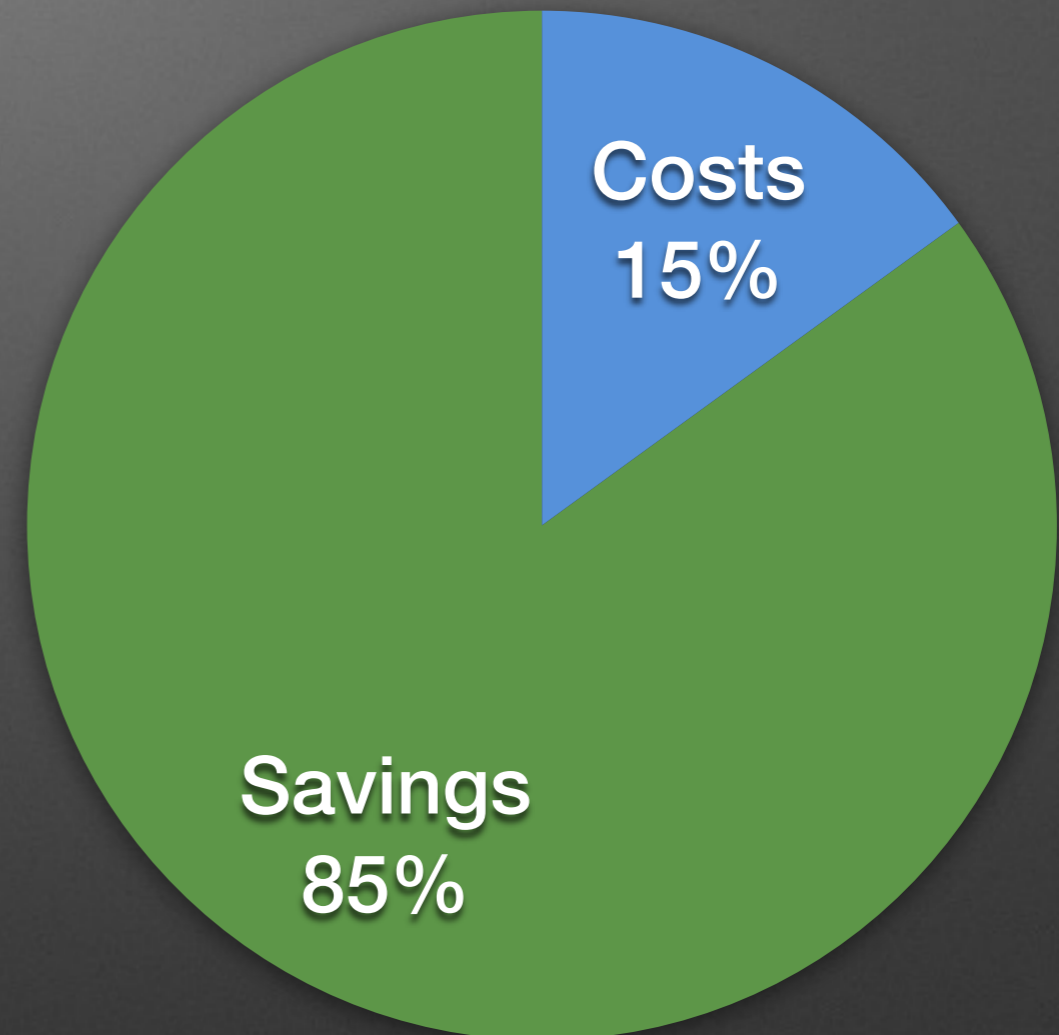
- CDI (instead of our home-grown stuff)
- CXF instead of RestEasy
- JPA support (OpenJPA/EclipseLink/Hibernate)
- Leveraging Java 8 support (eg parameter names via Reflection API)
- TomEE custom distribution
- Restful viewer
 - pluggable representations (HAL, Collection+JSON)
 - client-side JS support (Angular, Polymer, ...)
- User defined/shareable layouts

Roadmap for Estatio

- Getting more "ERP" stuff
 - Purchase Orders and Invoice payable
 - Projects
- Data tenancy to support different countries
 - Will be an isisaddons.org module
- Bespoke apps for different end-users
 - iPad app for shopping mall manager
- But most of all: "Owning software is owning a garden"

Did we succeed?

- Now running the leasing and invoicing of a multi-billion \$ company
 - Zero downtime
 - Zero errors in the output
- Written by two developers, part time, in 2 man years
- We've beaten estimations by an external auditor by 85%



Thank you

<http://isis.apache.org>

<http://isisaddons.org>

<http://estatio.org>

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Tutorial tomorrow!