

**DESIGNING A TECHNOLOGY STRATEGY
FOR A LARGE PUBLISHER**



**JULIEN MERCERON
WORLDWIDE TECHNOLOGY DIRECTOR
SQUARE ENIX GROUP**

A BIT OF HISTORY...



UBISOFT™

A BIT OF HISTORY...



A BIT OF HISTORY...

SQUARE ENIX®

AGENDA

EIDOS EVOLUTION (2006-2009)

DESIGNING A TECHNOLOGY STRATEGY

SQUARE ENIX TECHNOLOGY STRATEGY (2010+)

TECHNOLOGY NEXT 5 YEARS – FOOD FOR THOUGHTS

A BIT OF HISTORY...



SQUARE ENIX®

A BIT OF HISTORY...



UBISOFT™

SQUARE ENIX®

A BIT OF HISTORY...

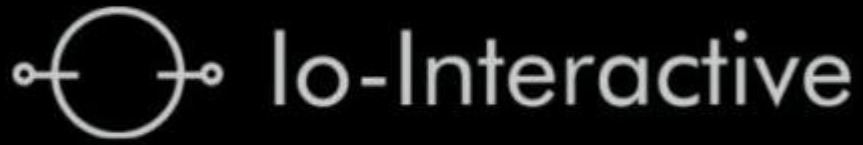


SQUARE ENIX®

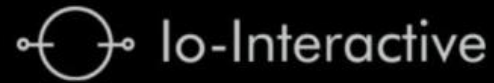
A BIT OF HISTORY...

- **Managing chaos in the short term ☺**
- **Short term independence to remove dependencies**
- **Empower AAA Teams (grow them fast)**
- **Preparing the future is fundamental...**
 - **Get us stronger overtime by relying on our experts**
 - **Creating strong relationships with Manufacturers to ramp up our expertise**
 - **Make strong short term partnerships on tech to have time to build our own**
 - **Always go early on new platforms (and drop support is not successful)**
 - **Start working on future technologies**
- **... but not to the extent of compromising with the short term!**
- **Knowledge Management is a MUST HAVE to grow everybody else (KM is always the least that you can do)**

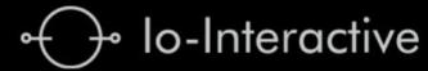
EIDOS EVOLUTION



EIDOS EVOLUTION



EIDOS EVOLUTION



SQUARE ENIX®

SQUARE ENIX COMES IN...

SQUARE ENIX

eidos
SHANGHAI

eidos
MONTREAL
a SQUARE ENIX company

Io-Interactive

CRYSTAL
DYNAMICS



TOMB
RAIDER

THIEF
www.thief.com



SQUARE ENIX

...EVOLUTION CONTINUES...



SQUARE ENIX.



eidos
MONTREAL
a SQUARE ENIX. company

Io-Interactive



TOMB
RAIDER

SQUARE ENIX.



TH14F
www.thieff.com

SQUARE ENIX®

EIDOS: THE DESIGN OF A TECHNOLOGY STRATEGY

CONTEXT IN 2006

Small Studios, we can't work internally on Deus Ex & Thief -> Create new Studio?

Focusing on too many platforms -> Ouch, problem of focus. Cannot win on new Gen if we don't change that...

Small company -> only a limited amount of things we can focus on. Choose your battles. Which ones?

Small Studios, but many ideas -> We need to enable small Teams. Outsourcing?

Single Player Franchises -> What should we do about Online?

Highly expensive locations, small return on investment -> Focus on Tools and pipelines? More efficient pipelines/workflows?

Highly talented people -> Awesome! Sky is the limit!

... strong Art Talents -> Share Assets?

... but no growth -> My senior people might leave... Be more "Horizontal"?

... and not very organized -> Ouch, re-think Project Life Cycles?

People trying to solve the same problem -> Interesting, could benefit from Knowledge Management. How to structure it?

Late on this transition & release date constraints -> Cannot have a unified tech approach.

CONCEPTS EMERGE...

PARTNERS

**KNOWLEDGE
MANAGEMENT**

NG ONLY

**NEW
STUDIO**

**ASSET
SHARING**

**ONLINE
SUITE**

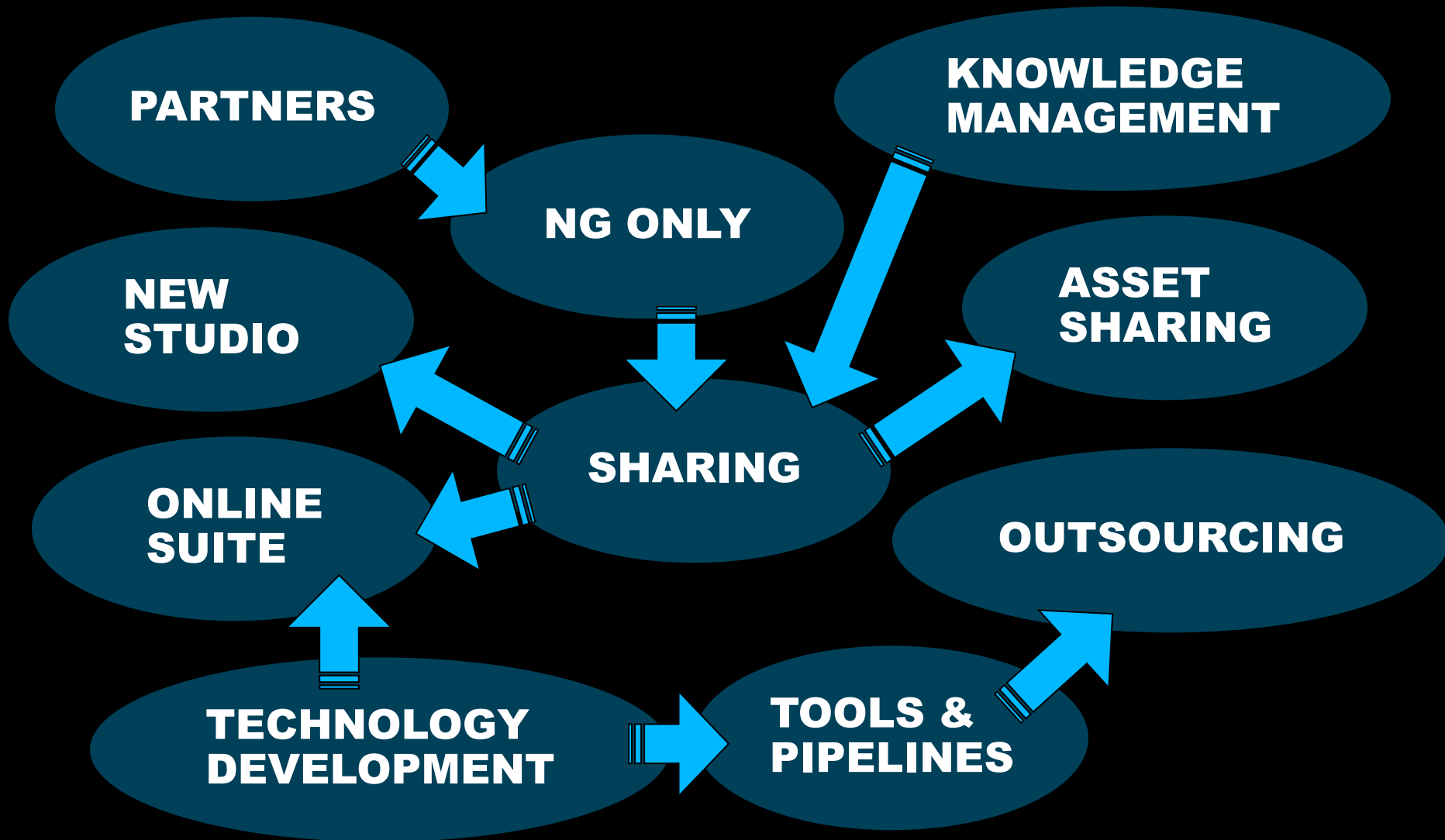
SHARING

OUTSOURCING

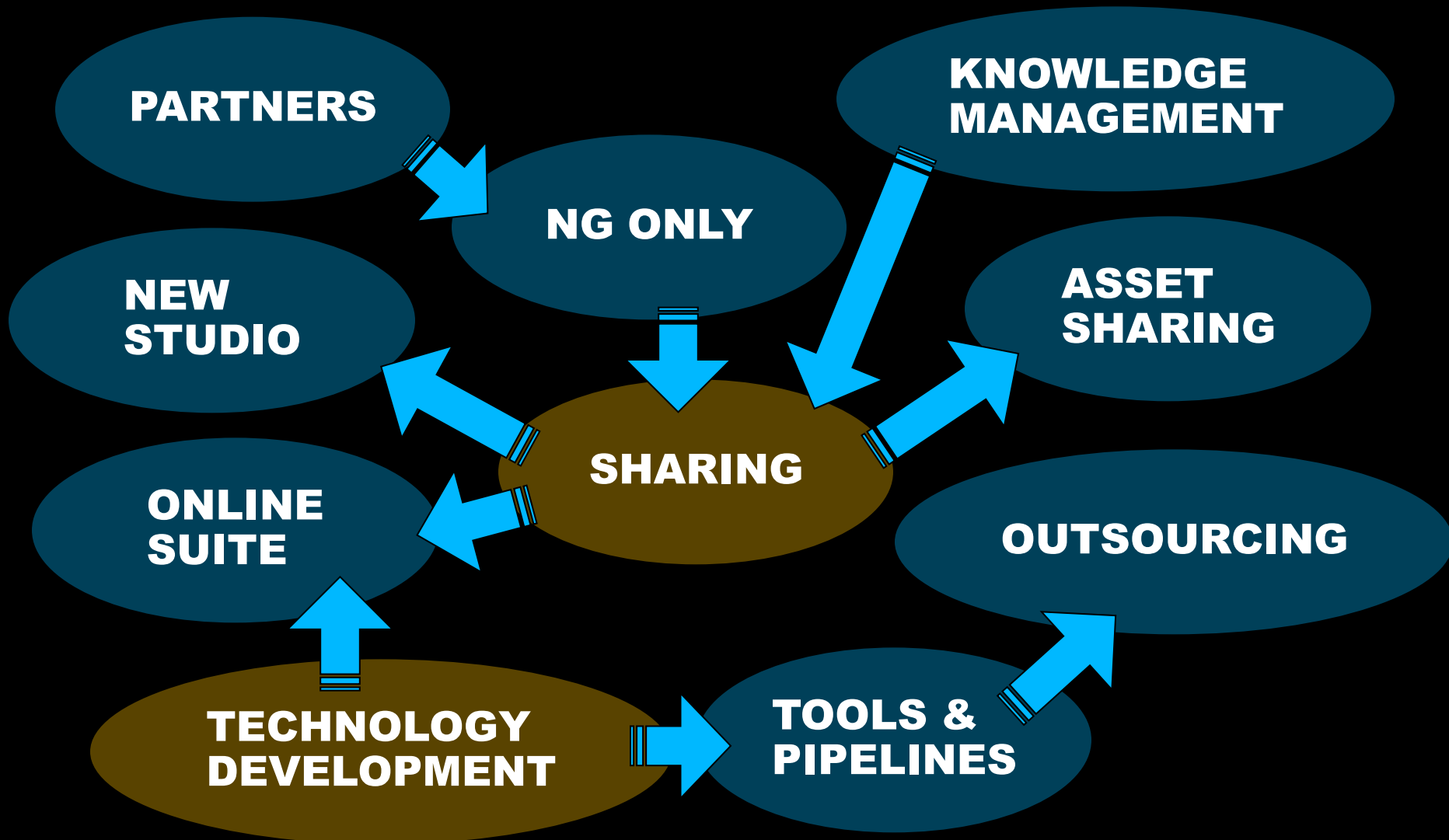
**TECHNOLOGY
DEVELOPMENT**

**TOOLS &
PIPELINES**

TRACK DEPENDENCIES...



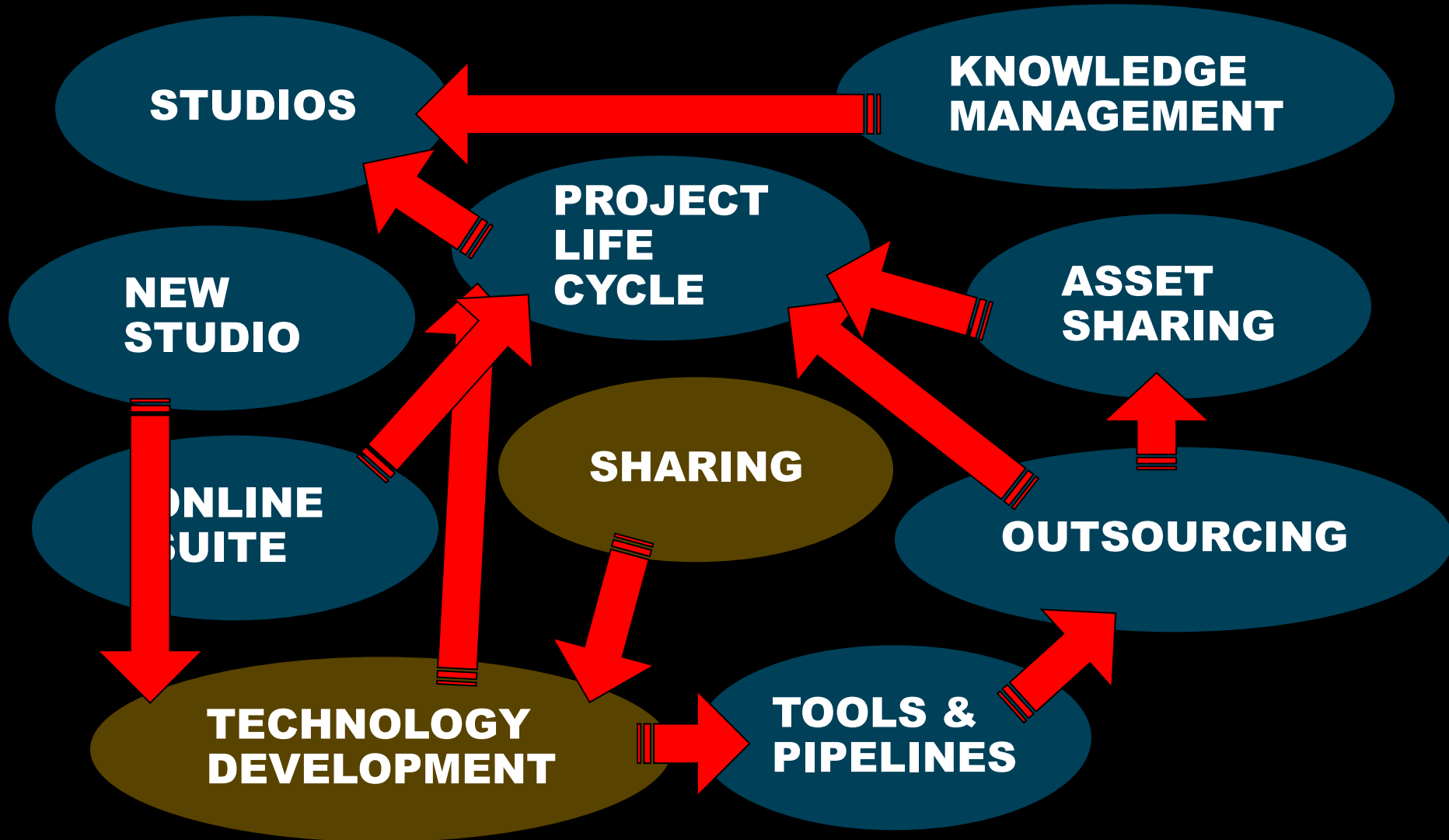
TRACK DEPENDENCIES...



**WHERE SHOULD I ESTABLISH
DEVELOPMENT?**

SQUARE ENIX®

CHECK THE EMPOWEREMENT GRAPH



... Validate it is “Studios Centric”
(which tends to be my philosophy)

SQUARE ENIX®

Structure enhancements

Knowledge Management

- Best practice sharing
- Problem solving across Studios
- Experts Meetings
- Information sharing

Support

- QA Tools
- Profiling Tools
- Localization Tools
- Control Tools
- Content availability across Studios
- New Development Studio
- Outsourcing Facility

Technology and Pipeline

- Feature sharing
- Code sharing
- Resource Reinforcement
- Business-ready platform
- Competitive Technologies
- Convergence Support
- Content Production Tools
- Production Pipelines

...AND THEN YOU GET YOUR GOALS IN PLACE

Structure enhancements

- Technology Board
- Expert Groups
- Incentives & Career Path
- Attract talents

Knowledge Management

- Technology Website
- Experts Meetings
- Company-wide Asset Sharing system

Support

- Tools: Development and Analysis
- Tools: QA, Localisation, Protection
- Tools: Content and Control
- Floating R&D
- New Development Studio
- Outsourcing Facility

Technology and Pipeline

- Technology Innovation
- Business Aware
- Technology Sharing
- Tools: Production Pipelines

STRUCTURE

LOCAL & GLOBAL (GLOCAL)

Local Technology Director in each Studio

Roles & Responsibilities

Eidos Technology Structure: Eidos Technology Board

HORIZONTAL & VERTICAL ASPECTS

The place & importance of Technology in the Company

Interaction with other divisions

KNOWLEDGE MANAGEMENT

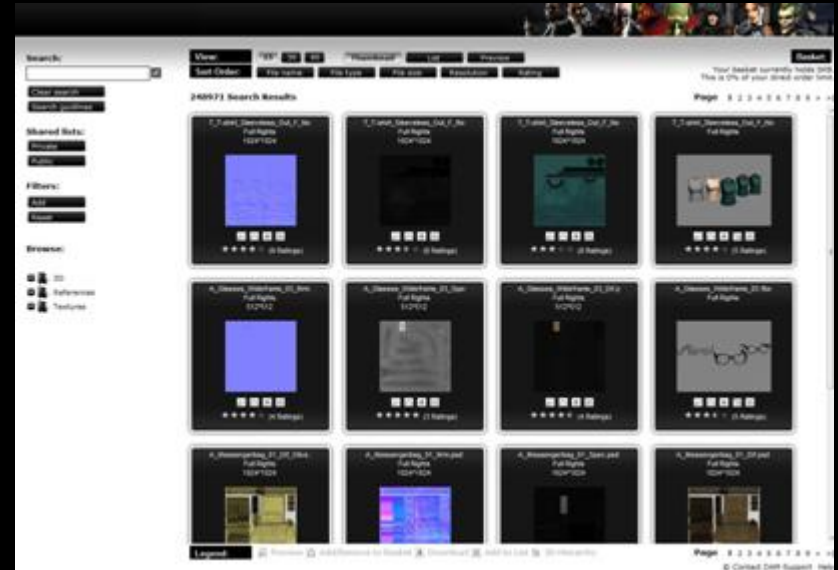
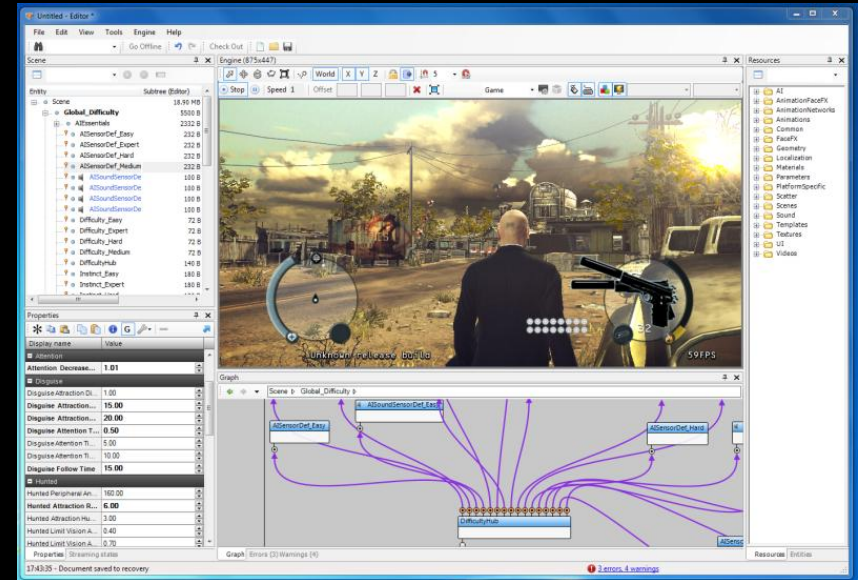
Infrastructure, Technology Websites, Repositories

Global Expert Meetings, Talent exchange

TECHNOLOGY

**G2
CDC
Internal shared libraries
+ Middleware**

**Global Technology Sharing
Global Asset Sharing**



FROM EIDOS TO SQUARE ENIX

SQUARE ENIX ACQUIRES EIDOS IN APRIL 2009



SQUARE ENIX ACQUIRES EIDOS IN APRIL 2009



JULY 2009 – Eidos Experts Meeting & IOI visit



AUGUST 2009 – I participate to CEDEC 2009



SEPTEMBER 2009 – Large Internal Presentation in Tokyo Office



JANUARY 2010 – Starting...

WHILE...

Helping here and there on different projects

Trying to make a difference early on

Getting to meet more people

Getting to learn more about how they are doing things

Identifying the Context

Identifying Problems and Needs

Identifying Wishes

... START:

Identifying the goals, and possible paths we have forward

DO SHIO ?

... BREAK ...

SCORE<1> HI-SCORE SCORE<2>
0400 0000

LOADING



3



CREDIT 00

LOADING



SQUARE ENIX®

NO « ONE SIZE FITS ALL » !

Whether it is a Western company or Japanese is not the question here. Just every company has different needs, driven by their approach to business, creativity, Studios Structure and technology. A CTO needs to start by understanding the Company, the long term strategy and find the best way to drive in that direction.

WE ARE COMPLEMENTARY !

Definitely amazing skills in Tokyo also, very complementary! Definitely a perception from Tokyo that Eidos is strong in Tech, and definitely a perception from Eidos that Tokyo is strong in Art. Complementarity also in Genre and target platforms, as well as relative to the online space.

NEED TO WORK AT DIFFERENT LEVELS ! LOCAL vs GLOBAL

Some great SEE initiatives won't translate easily to Tokyo, but we need to keep them. Think at different levels: Local and Global.

Keep some SEE specific aspects, keep some Tokyo specific aspects, identify what should be global.

RESPECT PRIVACY

**« What happens in Vegas stays in Vegas »
Privacy, « under the radar »
Hability to « Laver son linge sale en famille! »**

STRUCTURE

LOCAL & GLOBAL (GLOCAL)

Local Technology Director in each Studio

Roles & Responsibilities

Local SEE Structure: SEE Technology Board

Local Tokyo Structure: Tokyo Technology Committee

Global Structure: Global Technology Committee

HORIZONTAL & VERTICAL ASPECTS

The place & importance of Technology in the Company

Interaction with other divisions

KNOWLEDGE MANAGEMENT

Infrastructure, Technology Websites, Repositories

Global Expert Meetings, Talent exchange

TECHNOLOGY

G2

CDC

Crystal Tools (Final Fantasy XIII, etc.)

Need for new “Japanese made” Engine: Luminous project

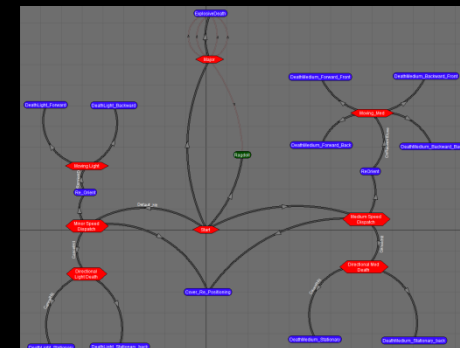
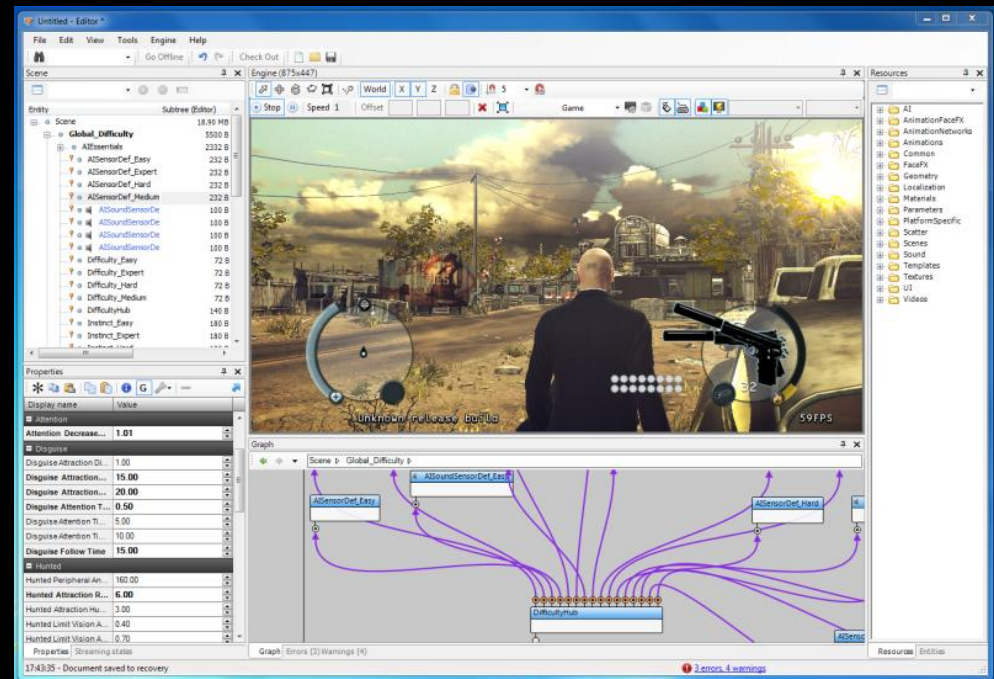
Internal shared libraries

+ Middleware

Global Technology Sharing

Global Asset Sharing

No... playing with Group knowledge and strength!
Based – among other things - on G2 and CDC strengths



LUMINOUS... From scratch?

Luminous will provide a balance between Western pipelines / workflows / technology design, and Japanese essentials
The staff on Luminous is roughly 30% western people.



As a conclusion:

- **Avoiding dependencies is key**
- **Avoiding “points of no return”**
- **Preparing the future is fundamental...**
 - Get us stronger overtime by relying on our experts**
 - Creating strong relationships with Manufacturers**
 - Make strong short term partnerships on technology to help focus**
 - Always go early on new platforms (and drop support is not successful)**
 - Be proactive, start working on future technologies, and share results**
- **... But not to the extent of compromising with the short term!**
- **Knowledge management is a MUST HAVE (this is always the least that you can do)**
- **Central technology development vs Middleware is always to be considered.**

And remember:

**Short term independence (or “chaos”) help fast growth in certain areas...
So think about removing unnecessary dependencies.**

Build the future according to Company Strategy, and Group dynamics.

...SO...

**WHAT IS NEXT FOR
US?**

**WHAT LIES AHEAD ON
THE TECH SIDE?**

...ABOUT “POINTS OF NO RETURN”...

Things change rapidly...

Don't take a No-return decision!

Reassess regularly

Be smart to avoid your tech to become ‘irrelevant’

When planning, be pessimistic (issues *will* happen)

Avoid long Project Life Cycles

(...or the world could change in the meantime)

Tools are essential to make PLC as short as possible..

(Incremental linking, live reloading, edit & continue)

2007



2007



2006



2006



2004



SQUARE ENIX®

EDITING



We will need to be very efficient!...
... Tools will be king!

SQUARE ENIX®

OUR FUTURE IS NOT ONLY “HIGH END”...

HOME
PLATFORMS

SOFTWARE
PLATFORMS

MOBILE
PLATFORMS



facebook.



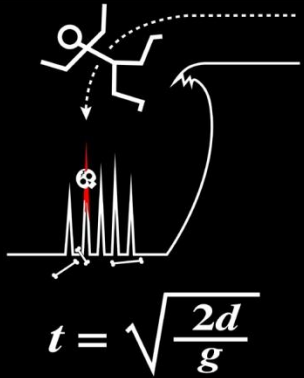
Many-Platforms...

... Hardware and Software platforms

... Impacts Core Programming Approaches

SQUARE ENIX®

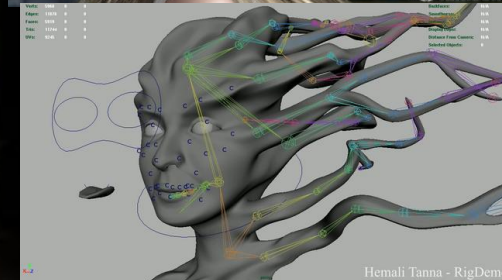
VISUAL SIMULATION



- Save memory and bandwidth
 - Memory is the main bottleneck to render highly detailed surfaces



	Level 8	Level 16	Level 32	Level 64
Regular Triangle Mesh	16MB	59MB	236MB	943MB
Displaced Subdivision Surface	1.9MB	7.5MB	30MB	118MB



**All collaborate heavily to the final render...
... any issue here ends up on screen**

SQUARE ENIX®



ONLINE



Important:

- think Multiplayer Online
- think Microtransactions
- think Social & Community
- think Safe & Secure
- think “Live”
- think many-platforms





... BUT IT WON'T BE EASY TO DELIVER!

Many platforms

New Interactivity and Graphic trends

Online will be key! Warning: New Business Models

New Narrative and Creative ways to enable!

Efficiency will be a must!

...IT TAKES TIME TO GET READY...

SO TOMORROW STARTS TODAY!

Q&A

